Math Review Task
Grade 5

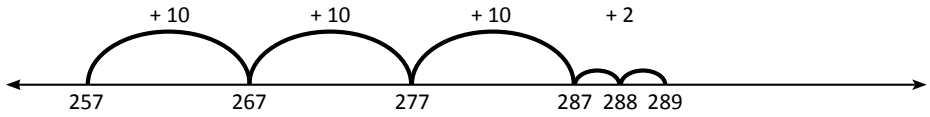
Addition and Subtraction:

Addition mental strategies – jump strategy

When we add we can use the jump strategy to help us. Look at 257 + 32:

1 First we jump up by the tens

2 Then we jump up by the ones

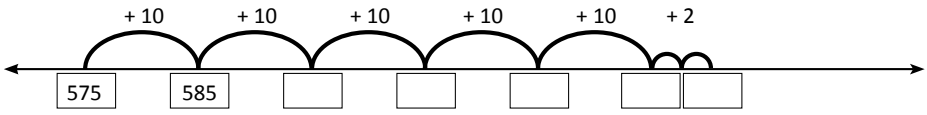


257 + 32 = 289

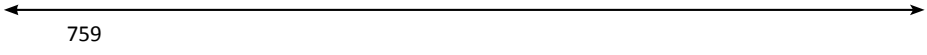
1 **Warm up with jumping by tens up and down these ladders:**

2 **Use the jump strategy to complete these additions:**

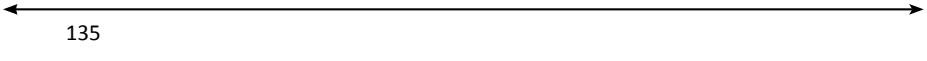
a 575 + 52 = ☐



b 759 + 41 = ☐



c 135 + 73 = ☐



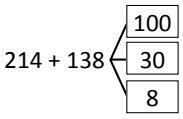
Math Review Task
Grade 5

Mathletics

Addition and Subtraction:

Addition mental strategies – split strategy

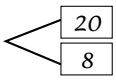
When adding large numbers in our heads it can be easier to split one of the numbers into parts and add each part separately.



214 + 100 = 314 → 314 + 30 = 344 → 344 + 8 = 352

214 + 138 = 352

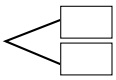
1 **Use the split strategy to add the numbers. The first one has been done for you.**

a 623 + 28 

623 + 20 = 643

643 + 8 = 651

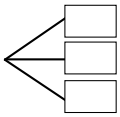
623 + 28 = 651

b 38 + 26 

_____

_____

38 + 26 = ☐

c 156 + 142 

_____

_____

_____

156 + 142 = ☐

2 **These problems have been split and some have been solved already. Lucky, hey? You just have to work out what the second numbers were before they were split and answer any unsolved problems:**

a 416 + 90 + 1 = 507

was

416 + 91

b 230 + 30 + 3 = ☐

was

230 + _____

c 283 + 60 + 7 = ☐

was

283 + _____

d 532 + 60 + 1 = ☐

was

532 + _____

e 425 + 100 + 40 + 2 = ☐

was

425 + _____

f 129 + 200 + 40 + 6 = ☐

was

129 + _____

3 **Work out the answers to these questions by using the split strategy. See if you can do the working in your head. If it helps, make notes as you go:**

a 173 + 36 = ☐

b 446 + 51 = ☐

c 112 + 83 = ☐

d 724 + 72 = ☐

e 475 + 122 = ☐

f 123 + 164 = ☐

Math Review Task
Grade 5

Mathletics

Addition and Subtraction:

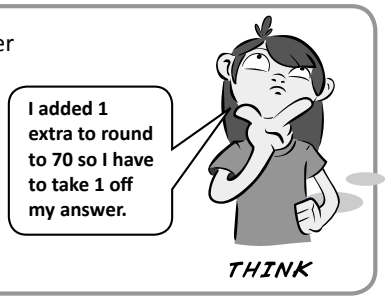
Addition mental strategies – compensation strategy

Sometimes we round one number in the problem to make it easier to do in our heads. Then we adjust our answer to compensate:

405 + 69 = 474

405 + 70 (– 1) *I rounded up by 1*

475 (– 1) = 474 *so I subtract 1.*



1 **Warm up by rounding these numbers to the closest ten:**

a 48 _____ **b** 67 _____ **c** 232 _____ **d** 74 _____

e 89 _____ **f** 456 _____ **g** 955 _____ **h** 786 _____

2 **Solve these problems using compensation:**

a 45 + 37 = ☐

45 + 40 ◯

_____ ◯ = _____

b 66 + 18 = ☐

66 + _____ ◯

_____ ◯ = _____

c 86 + 49 = ☐

86 + _____ ◯

_____ ◯ = _____

d 124 + 57 = ☐

124 + _____ ◯

_____ ◯ = _____

We can also round down to the closest ten. When we do this we add to compensate.

3 **Round these numbers to the closest ten. Then compensate by adding:**

a 26 + 42 = ☐

26 + 40 ◯

_____ ◯ = _____

b 35 + 63 = ☐

35 + _____ ◯

_____ ◯ = _____

c 96 + 21 = ☐

96 + _____ ◯

_____ ◯ = _____

d 145 + 34 = ☐

145 + _____ ◯

_____ ◯ = _____

Math Review Task
Grade 5

Mathletics

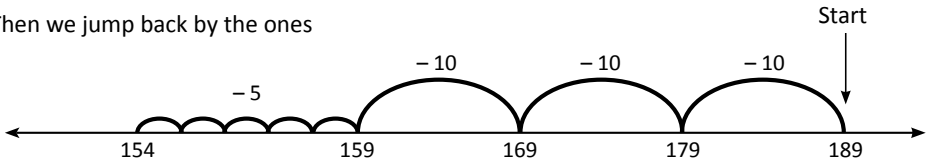
Addition and Subtraction:

Subtraction mental strategies – jump strategy

When we subtract we can use the jump strategy to help us. Look at 189 – 35:

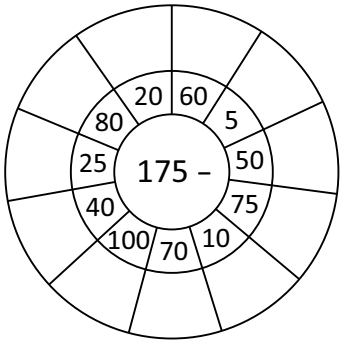
1 First we jump back by the tens

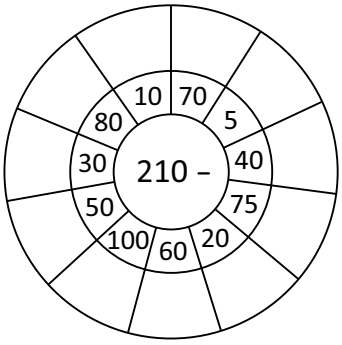
2 Then we jump back by the ones



189 – 35 = 154

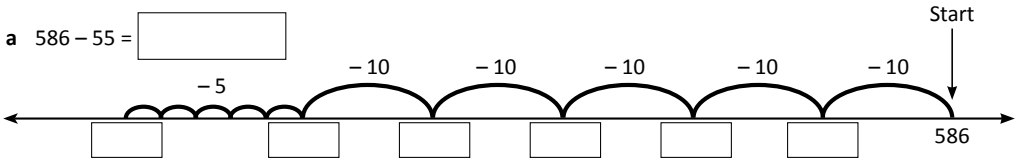
1 **Warm up with these subtraction wheels:**





2 **Use the jump strategy to complete these subtraction problems. The first one has been started for you:**

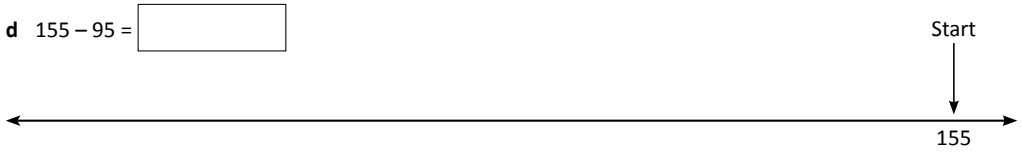
a 586 – 55 = ☐



b 388 – 45 = ☐

c 624 – 31 = ☐

d 155 – 95 = ☐



Math Review Task
Grade 5

Mathletics

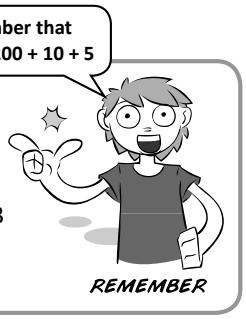
Addition and Subtraction:

Subtraction mental strategies – split strategy

When subtracting large numbers in our heads it can be easier to split the number to be subtracted into parts and work with each part separately.

468 – 215 → 200, 10, 5 → 468 – 200 = 268 → 268 – 10 = 258 → 258 – 5 = 253

468 – 215 = 253



1 **Practice splitting these numbers into hundreds, tens and ones. The first one is done for you.**

a 356 = 300 + 50 + 6 **b** 289 = _____ **c** 867 = _____

d 923 = _____ **e** 442 = _____ **f** 294 = _____

2 **Use the split strategy to subtract:**

a 468 – 316

468 – 300 = _____

_____ – 10 = _____

_____ – 6 = _____

468 – 316 = _____

b 574 – 155

_____ – _____ = _____

_____ – _____ = _____

_____ – _____ = _____

574 – 155 = _____

c 457 – 323

_____ – _____ = _____

_____ – _____ = _____

_____ – _____ = _____

457 – 323 = _____

3 **Work out the answers to these questions then cross out the letter above each answer in the puzzle. The letters that remain will form the answer to the riddle.**

a 484 – 74 = **b** 400 – 80 = **c** 406 – 106 =

d 410 – 40 = **e** 403 – 13 = **f** 455 – 60 =

g 497 – 92 = **h** 505 – 25 = **i** 520 – 25 =

j 795 – 150 = **k** 410 – 100 =

S	Y	H	O	U	E	R	X	E	L	A
300	195	410	305	150	320	505	370	595	405	200

K	Z	R	I	D	R	J	U	M	V	A
390	495	220	395	210	385	480	500	205	645	310

Riddle: What is the most rhythmic part of your body?

Math Review Task
Grade 5

Mathletics

Addition and Subtraction:

Subtraction mental strategies – compensation strategy

Sometimes we round one number in the problem to make it easier to do in our heads. Then we adjust our answer to compensate:

486 – 59 = 427

486 – 60 (+ 1) *I rounded up by 1, which means I subtracted*

426 (+ 1) = 427 *1 extra so we need to add 1 back.*

1 **Round these numbers to the closest ten. Then compensate by subtracting or adding to get back to the first number. The first one is done for you.**

a 93 = *90 + 3* **b** 48 = _____ **c** 52 = _____ **d** 76 = _____

e 57 = _____ **f** 37 = _____ **g** 27 = _____ **h** 68 = _____

2 **Solve these subtraction problems using compensation. Show all your working out:**

a 585 – 78 = ☐

585 – 80 (+ 2)

_____ ◯ = _____

b 894 – 71 = ☐

894 – 70 (– 1)

_____ ◯ = _____

c 163 – 149 = ☐

163 – 150 (+ 1)

_____ ◯ = _____

3 **Solve these problems using compensation. Decide if you need to round up or down and compensate accordingly:**

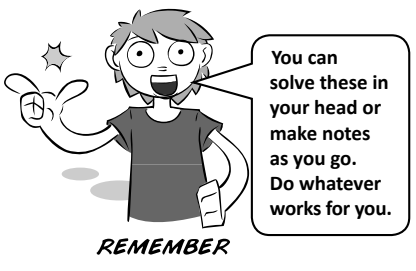
a 555 – 63

b 775 – 98

c 644 – 139

d 594 – 329

e 432 – 204



Math Review Task
Grade 5

Mathletics

Addition and Subtraction:

Written methods – addition

	H	T	O
	$^{1}2$	$^{1}3$	5
+	4	8	9
	7	2	4

How do we add using a written strategy?
First we estimate: 235 + 500 = 735. Our answer will be around 735.
We start with the ones. 5 + 9 is 14 ones. We rename this as 1 ten and 4 ones.
We put the 4 in the ones column and carry the 1 to the tens column.
3 tens plus 8 tens plus the carried ten is 12 tens.
We rename this as 1 hundred and 2 tens.
We put the 2 in the tens column and carry the 1 to the hundreds column.
We add the hundreds. We put 7 in the hundreds column.
Finally we check against our estimate – do they match?

1 **Solve these addition problems. First estimate the answers:**

a e: ____

	H	T	O
	5	4	1
+	3	1	3

b e: ____

	H	T	O
	1	7	3
+	5	9	2

c e: ____

	H	T	O
	3	8	4
+	2	1	3

d e: ____

	H	T	O
	2	6	8
+	4	9	3

e e: ____

	Th	H	T	O
	2	2	1	7
+	3	4	0	8

f e: ____

	Th	H	T	O
	4	5	1	6
+	1	3	4	3

g e: ____

	Th	H	T	O
	5	3	8	9
+	1	2	7	4

h e: ____

	Th	H	T	O
	3	2	8	1
+	1	4	2	8

2 **Use these cards to make 5 different addition problems using 2 and 3 digit numbers.**
Show your working out:

2	3	4	5	6	7	8	9	=	+

Math Review Task
Grade 5

Mathletics

Addition and Subtraction:

Written methods – subtraction

	H	T	O
	9	$^{8}\cancel{9}$	$^{1}4$
–	2	7	8
	7	1	6

First we estimate: 1,000 – 300 = 700

We start with the ones. We can't take 8 away from 4 so we must rename one of the tens as ones. We now have 14 ones.

14 subtract 8 is 6 so we put the 6 in the ones column.

8 tens subtract 7 tens is 1 ten so we put a 1 in the tens column.

We subtract the hundreds. 9 hundred subtract 2 hundred is 7 hundred. Put a 7 in the hundreds column.

We check the answer against our estimate.

1 **Complete the subtraction problems:**

a e:

	Th	H	T	O
	4	9	8	2
–		1	5	3

b e:

	Th	H	T	O
	2	9	5	1
–		8	7	8

c e:

	Th	H	T	O
	3	8	7	2
–		5	8	6

When a problem asks us to find the difference, we subtract. We always start with the larger number.

2 **Solve these problems to find the difference:**

a How far from Showtown to Ringer?

	Th	H	T	O

b What is the distance from Normanville to Tidings?

	Th	H	T	O

c What is the distance from Roper to Eagle Bay?

	Th	H	T	O

d How far from Normanville to Ace Bay?

	Th	H	T	O

Math Review Task
Grade 5

Addition and Subtraction:

Written methods – adding and subtracting decimals

When we add and subtract decimals we follow the same rules we use when working with whole numbers. We need to make sure we line up the place values and the decimal points:

	H	T	O
	$^{3}\not{4}$	$^{1}3$	• 3
−	1	7	• 2
	2	6	• 1

1 **Estimate and solve these addition problems. Remember to put the decimal point into your answers:**

a e: _____

	T	O	T
	5	4 •	1
+	3	1 •	3

b e: _____

	T	O	T
	3	2 •	3
+	5	8 •	1

c e: _____

	T	O	T
	4	8 •	4
+	4	1 •	3

d e: _____

	T	O	T
	2	7 •	8
+	3	9 •	3

e e: _____

	T	O	T	H
	5	2 •	1	7
+	3	5 •	9	2

f e: _____

	T	O	T	H
	4	5 •	1	
+	1	4 •	0	5

g e: _____

	T	O	T	H
	5	3 •	8	9
+	1	2 •	1	4

h e: _____

	T	O	T	H
	3	2 •	4	1
+	1	9 •	3	3

2 **Estimate and solve these subtraction problems. Remember to put the decimal point into your answers:**

a e: _____

	T	O	T
	8 •	4	3
−	3 •	2	3

b e: _____

	T	O	T
	9 •	0	8
−	5 •	3	2

c e: _____

	T	O	T
	7 •	6	3
−	2 •	0	4

d e: _____

	T	O	T
	9 •	7	
−	3 •	2	3

3 **Bart finished his race in a time of 10.67 sec. Lisa finished in 11.24 sec. How much faster was Bart?**

Math Review Task
Grade 5

Mathletics

Addition and Subtraction:

Written methods – word problems

1 **Solve the following word problems using addition or subtraction. Circle the process you use to calculate the answer:**

a Joe scored 346 more points than Zac. Joe scored 589 points. How many points did Zac score?

\+ .....
− .....
Answer _____

b Jenny is 32 cm taller than Jaala. Jaala is 143 cm tall. How tall is Jenny?

\+ .....
− .....
Answer _____

c Mattie recorded 117 mm of rain. Stephania recorded 58 mm more. How much rain did Stephania record?

\+ .....
− .....
Answer _____

d Wayne has $17. How much more money does he need to buy a t-shirt that costs $39?

\+ .....
− .....
Answer _____

e Charlene had $132. After she paid for a ticket, she had $84. How much did the ticket cost?

\+ .....
− .....
Answer _____

f Sanjay spent $34 and had $92 left. How much did he have before the purchase?

\+ .....
− .....
Answer _____

g Jared's bike cost $189. Molly's bike cost $263. What is the price difference between the two bikes?

\+ .....
− .....
Answer _____

h The rainfall in Two Wells was 73 mm. Gawler recorded 36 mm less. How much rainfall did Gawler record?

\+ .....
− .....
Answer _____

i Write your own word problem and solve it.

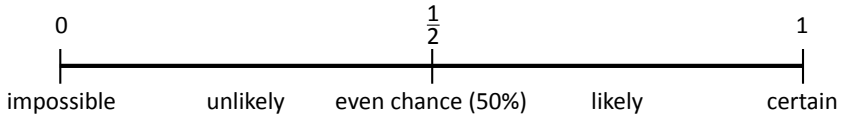
\+ .....
− .....
Answer _____

Math Review Task
Grade 5

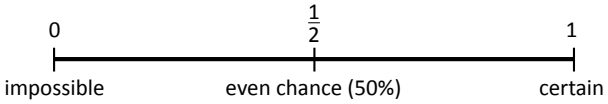
Chance and Probability:

Chance and probability – ordering events

Probability measures how likely something is to happen.
An event that is **certain** to happen has a probability of 1.
An event that is **impossible** has a probability of 0.
An event that has an **even** or **equal** chance of occurring has a probability of $\frac{1}{2}$ or 50%.

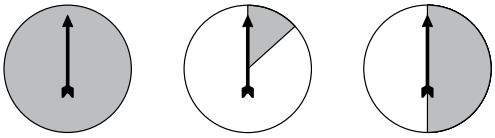


1 **Are these events impossible, certain or an even chance? Complete this table. The first one has been done for you.**



Event	Probability
The month after June will be February.	*impossible*
You will get an odd number when you roll a single die.	
The year after 2010 will be 2007.	
When you flip a coin it will land on tails.	
The day after Saturday will be Sunday.	

2 **Draw a line to match each spinner with the correct statement:**

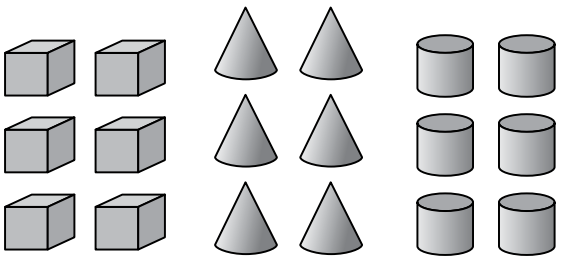


It is **unlikely** that this spinner will stop on grey.

It is **certain** that this spinner will stop on grey.

There is an **even chance** that this spinner will stop on grey.

3 **Matilda has these blocks:**



cubes **cones** **cylinders**

Matilda is going to put 9 blocks in a bag using some of each type and then ask a friend to choose one without looking. If she wants to make it more likely that a cylinder is chosen and less likely that a cube is chosen, how many of each block should she place in the bag? Circle the blocks she could choose.

Math Review Task
Grade 5

Mathletics

Chance and Probability:

Chance and probability – relating fractions to likelihood

So far we have looked at the language of chance and outcomes either being at 0 (impossible), $\frac{1}{2}$ (even) or 1 (certain). But what is the likelihood of outcomes in the unlikely range or the likely range? Outcomes in these ranges can be expressed as either fractions, decimals or %. Remember that when finding the chance or likelihood of an event occurring, we must look at all possible outcomes.

$$\text{chance} = \frac{\text{likelihood of event occurring}}{\text{number of possible outcomes}}$$

1 **There are 20 chocolates in a box that all look the same. There are 6 milk, 4 caramel, 3 mint and 7 dark chocolates.**

a If you choose one chocolate without looking, which chocolate are you most likely to get? _____

b Which chocolate are you least likely to get? _____

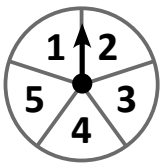
c Show the chance of selecting each type of chocolate as a fraction:

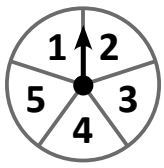
milk = $\frac{6}{20}$ caramel = $\frac{\square}{\square}$ dark chocolate = $\frac{\square}{\square}$ mint = $\frac{\square}{\square}$

d Color the word that best describes the chance of selecting a mint chocolate:

certain | even | unlikely | impossible

2 **Use this table to work out all the possible totals for a pair of five-sided spinners. Color match the totals. Make all the sixes yellow, all the fours blue and so on.**





Spinner 2 \ Spinner 1	1	2	3	4	5
1	2				6
2	3				
3	4		6		
4	5				
5	6				10

3 **Look at the table above.**

a Which total is most likely? _____

b What is the likelihood of this total occurring? Express your answer as a fraction: $\frac{\square}{\square}$

c Which total is least likely? _____

d Express its likelihood as a fraction. $\frac{\square}{\square}$

Math Review Task
Grade 5

Mathletics

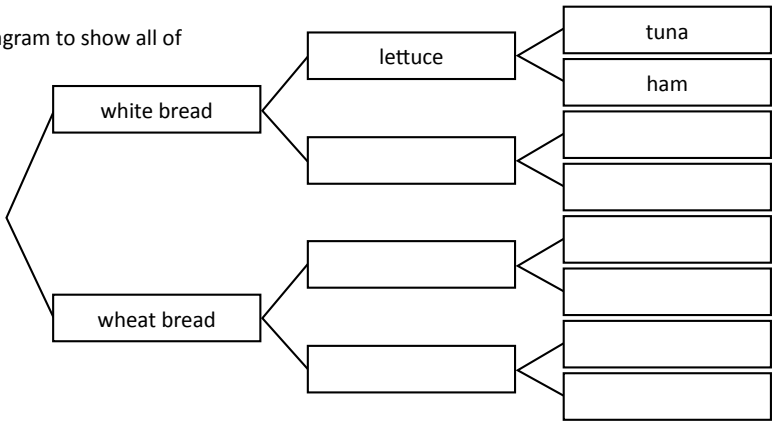
Chance and Probability:

Chance and probability – chance experiments

Before we conduct a chance experiment, we need to work out what all the possible outcomes are. This helps us to look at how likely a particular outcome is and if the results are surprising or not. To do this, we can use a tree diagram. We count the boxes at the end of the diagram to find the total number of options.

1 **Lisa is ordering her lunch from the cafeteria. She has a choice of white bread or wheat bread, lettuce or tomato, tuna or ham.**

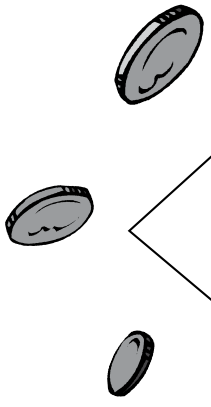
a Complete this tree diagram to show all of her options:

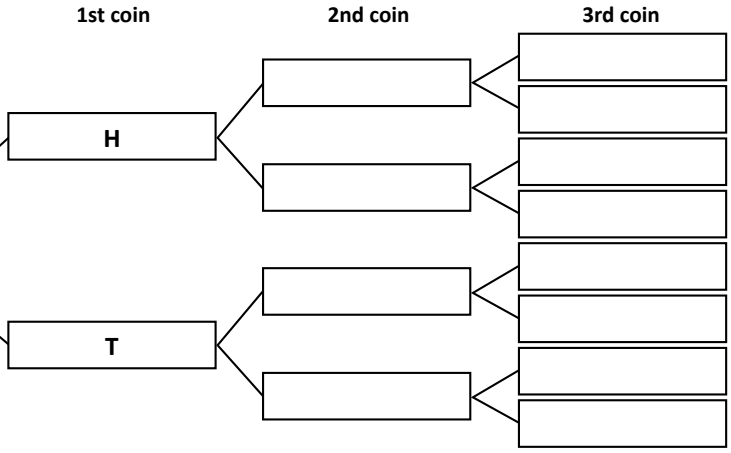


b How many different sandwich combinations does Lisa have to choose from? _____

2 **3 coins are tossed together.**

a Fill in this tree diagram to work out all the combinations that are possible when 3 coins are tossed.





b Follow the tree branches to find out the possibility of throwing:

3 heads ☐/☐ 3 tails ☐/☐ 2 heads, 1 tail ☐/☐ 1 head, 2 tails ☐/☐

Math Review Task
Grade 5

Mathletics

Chance and Probability:

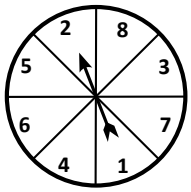
Chance and probability – fair or unfair

When everyone has the same chance of winning a game or competition, it is **fair**.
It is **unfair** when everyone does not have the same chance of winning.

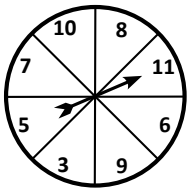
For example look at the cards above. Jack wins if he draws a card with a smiley, Jo wins if she draws a card with a heart shape on it.
Do both players have the same chance of winning?
Circle the correct statement:

Yes this is fair No this is unfair

1 **Jess and Sam play a game with spinners where they each spin their spinner 5 times and add up all the numbers. The person with the biggest total wins.**



Jess' spinner

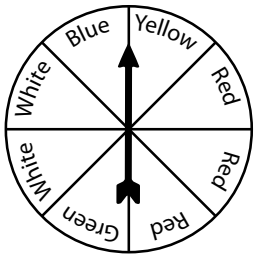


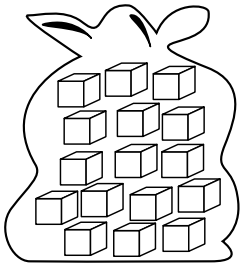
Sam's spinner

a Is this fair or unfair? _____

b Explain why:

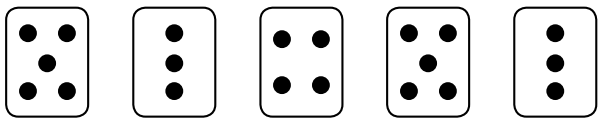
2 **You are playing a game using a spinner and cubes. You are given a cube randomly and then the spinner is spun. If it lands on your color cube, you are out. Color the cubes to make the game fair.**



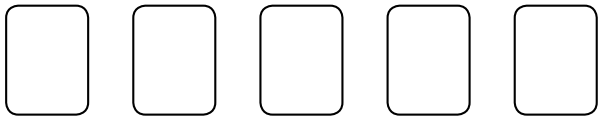


3 **Katie invented a card game for 2 players where each player has 5 cards and turns them over face down. Players then draw a card at the same time. If it has 5 dots you win a point. What should Player 2's cards look like to make the game fair?**

Player 1's cards



Player 2's cards



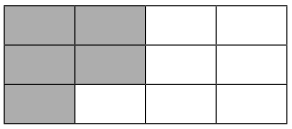
Math Review Task
Grade 5

Mathletics

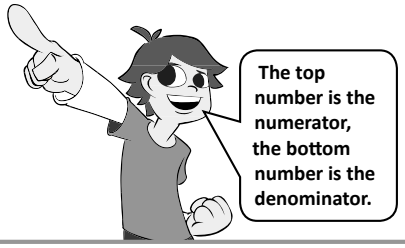
Fractions, Decimals and Percentages:

Fractions – fractions of shapes

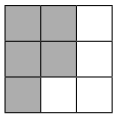
A fraction is a part of a whole.
This shape has 12 equal parts. 5 of these have been shaded.

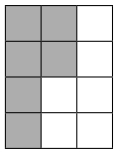


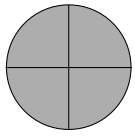
$\frac{5}{12} = \frac{\text{5 shaded parts}}{\text{12 parts altogether}}$

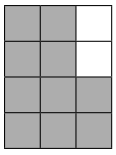


1 **What fraction of each shape has been shaded?**

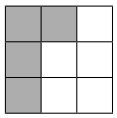
a $\frac{\square}{9}$ 

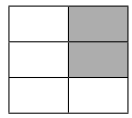
b $\frac{\square}{\square}$ 

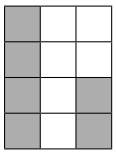
c $\frac{\square}{\square}$ 

d $\frac{\square}{\square}$ 

e $\frac{\square}{\square}$ 

f $\frac{\square}{\square}$ 

g $\frac{\square}{\square}$ 

h $\frac{\square}{\square}$ 

2 **Answer the following questions about the shapes above:**

a What part of **a** is **unshaded**? $\frac{\square}{\square}$

b What fraction of **e** is **unshaded**? $\frac{\square}{\square}$

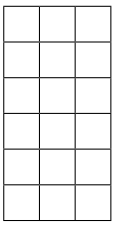
c In **f**, is more of the shape shaded or unshaded? _____

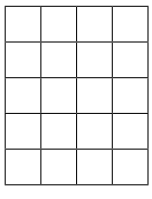
d What fraction of **b** is **unshaded**? $\frac{\square}{\square}$

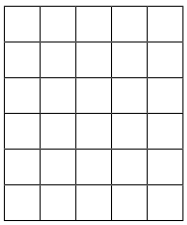
e Look at shape **h**. What can you say about the amount of shaded and unshaded parts?

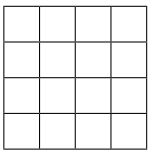
_____

3 **Shade the given fraction for each shape:**

a $\frac{8}{18}$ 

b $\frac{17}{20}$ 

c $\frac{12}{30}$ 

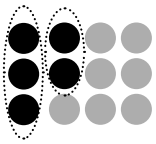
d $\frac{12}{16}$ 

Math Review Task
Grade 5

Mathletics

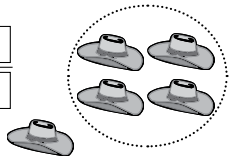
Fractions, Decimals and Percentages:

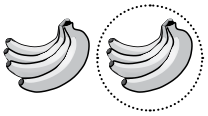
Fractions – fractions of a collection

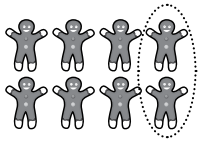


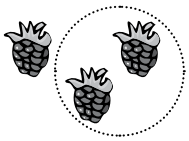
We can also have fractions of groups.
This is a group of 12 dots. 5 out of the 12 dots are circled.
We express this as $\frac{5}{12}$

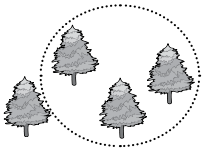
1 **What fraction of each group has been circled?**

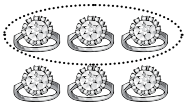
a $\frac{\square}{\square}$ 

b $\frac{\square}{\square}$ 

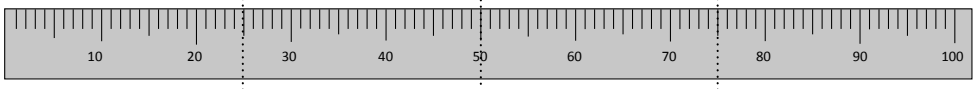
c $\frac{\square}{\square}$ 

d $\frac{\square}{\square}$ 

e $\frac{\square}{\square}$ 

f $\frac{\square}{\square}$ 

2 **Look at the meter ruler and work out how many centimeters are represented by the fraction (Hint: 100 cm = 1 meter):**

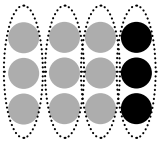


a $\frac{1}{4}$ m = _____ cm

b $\frac{1}{2}$ m = _____ cm

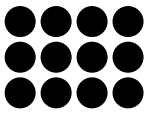
c $\frac{3}{4}$ m = _____ cm

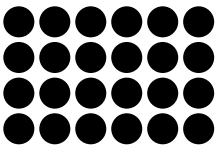
Sometimes we are asked to find the fraction of an amount such as:



Find one quarter of this array.
There are 12 dots in the array.
First we divide the array into 4 equal parts.
There are 3 dots in each part or quarter so one quarter of 12 is 3.

3 **Use the arrays to help find the given fractions of the groups:**

a $\frac{1}{3}$ of this array is _____ dots  $\frac{1}{6}$ of this same array is _____ dots

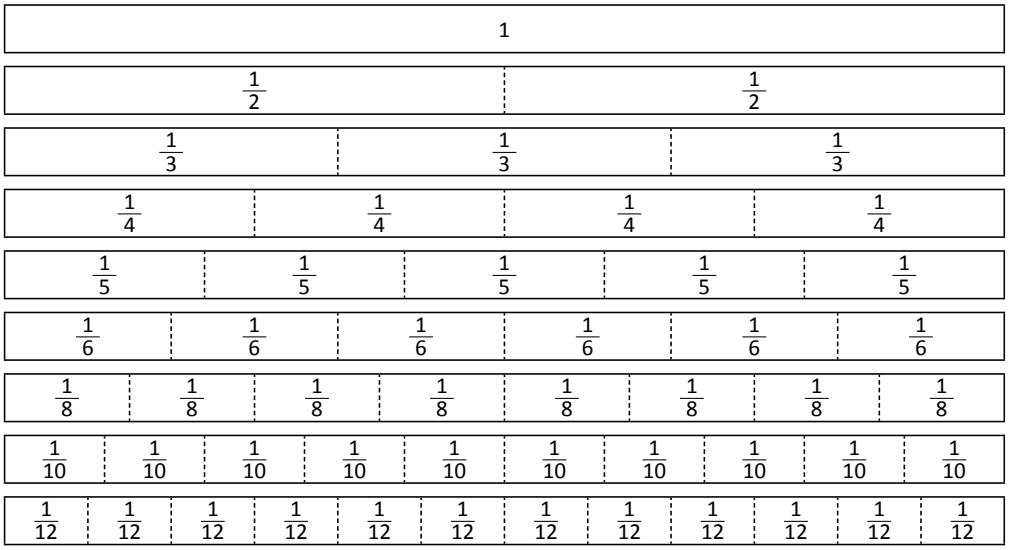
b $\frac{1}{4}$ of this array is _____ dots  $\frac{1}{6}$ of this same array is _____ dots

Math Review Task
Grade 5

Fractions, Decimals and Percentages:

Fractions – comparing and ordering fractions

We can use number lines or fraction strips to help us compare and order fractions.



1 **Use the strips above to help you answer the following questions. Circle the correct answers:**

a Which is bigger? $\frac{3}{4}$ or $\frac{4}{8}$ **b** Which is smaller? $\frac{2}{10}$ or $\frac{2}{8}$ **c** Which is smaller? $\frac{2}{4}$ or $\frac{3}{12}$

2 **Use the fraction strips to:**

a Find 3 fractions that are the same as $\frac{1}{2}$

b Find 2 fractions that are the same as $\frac{1}{3}$

c Find the fraction that is greater than $\frac{2}{3}$ but less than $\frac{3}{4}$

3 **Write 2 similar problems for a friend to solve:**

Math Review Task
Grade 5

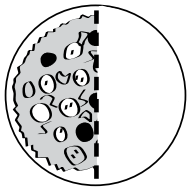
Mathletics

Fractions, Decimals and Percentages:

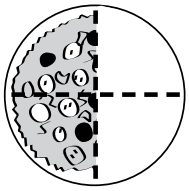
Types of fractions – equivalent fractions

Different fractions can have the same amount. They are equivalent.

This pizza has been cut into 2 parts. $\frac{1}{2}$ has been eaten.

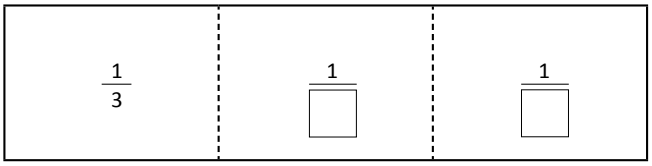


This pizza has been cut into 4 parts. $\frac{2}{4}$ has been eaten.

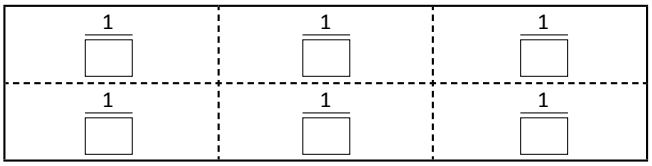


1 **Do this folding paper activity to help you understand how equivalent fractions work:**

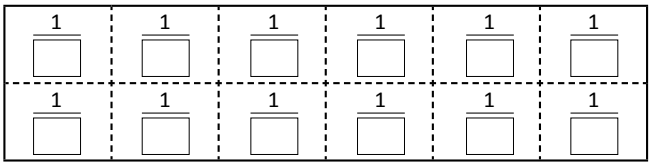
a You'll need a separate rectangular piece of paper similar to the one below. Fold it into 3 equal parts and then unfold it. Label each section with its fraction here:



b Refold your paper into thirds and fold the thirds into halves. Unfold the paper. What fraction does each of the new sections represent? Label them here:



c Fold the paper back again and fold it in half once more. Unfold it and label the fractions here:



2 **Use the diagrams in Question 1 to help you answer the following questions:**

a What fractions can you find that are equivalent to $\frac{1}{3}$? $\frac{\square}{\square}$ $\frac{\square}{\square}$

b What fractions can you find that are equivalent to $\frac{8}{12}$? $\frac{\square}{\square}$ $\frac{\square}{\square}$

c What other fractions can you think of that might be equivalent to $\frac{6}{12}$?

Math Review Task
Grade 5

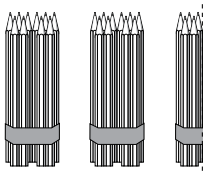
Mathletics

Fractions, Decimals and Percentages:

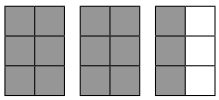
Types of fractions – mixed numbers and improper fractions

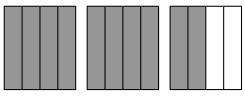
Mixed numbers consist of both a whole number and a fraction.
Ky has 2 full packets of pencils and one half packet of pencils.

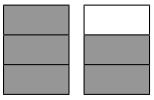
This is shown as $2\frac{1}{2}$

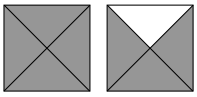


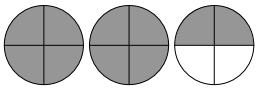
1 **Write a mixed numbers for each of the shaded sets of shapes:**

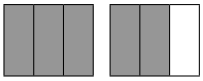
a  = ☐ ☐/☐

b  = ☐ ☐/☐

c  = ☐ ☐/☐

d  = ☐ ☐/☐

e  = ☐ ☐/☐

f  = ☐ ☐/☐

2 **Draw some diagrams or pictures that would represent:**

a

3 and $\frac{1}{2}$

b

1 and $\frac{3}{4}$

c

1 and $\frac{1}{4}$

d

3 and $\frac{3}{4}$

3 **What might the missing numbers be?**

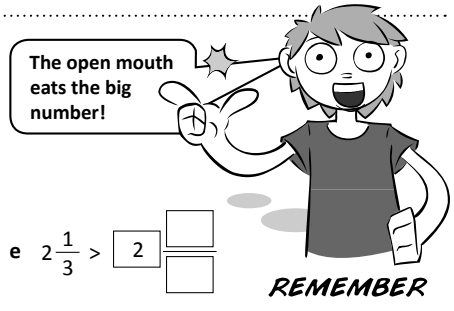
a $1\frac{1}{2} > \square\frac{\square}{4}$

b $3\frac{1}{3} < \square\frac{\square}{\square}$

c $1\frac{1}{5} < \square\frac{\square}{\square}$

d $2\frac{3}{6} > \square\frac{\square}{\square}$

e $2\frac{1}{3} > \square\frac{\square}{\square}$



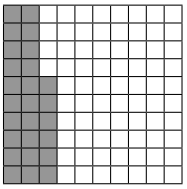
Math Review Task
Grade 5

Mathletics

Fractions, Decimals and Percentages:

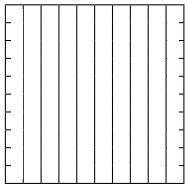
Fractions, decimals and percentages – tenths and hundredths

A hundredth is a tenth of a tenth.
Here, 26 hundredths have been shaded.
We write this as **0.26**
There are no ones, 2 tenths and 6 hundredths.



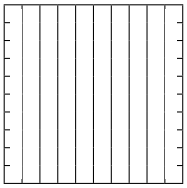
1 **Use a ruler and a pencil to divide these into hundredths and then shade the specified amounts:**

a



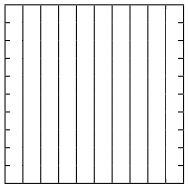
$\frac{61}{100}$ 0 •

b



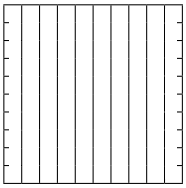
$\frac{82}{100}$ 0 •

c



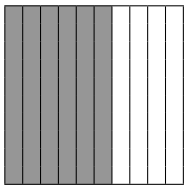
$\frac{55}{100}$ 0 •

d

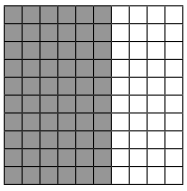


$\frac{27}{100}$ 0 •

Six tenths are shaded here.



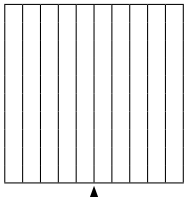
Sixty hundredths are shaded here.



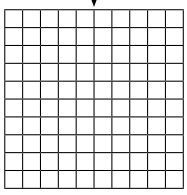
What do you notice? Sixty hundredths and six tenths have the same value 0.60 = 0.6

2 **Check that the above statement is true by shading the amounts. Are they the same?**

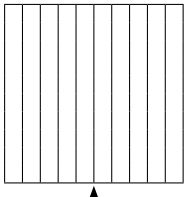
a



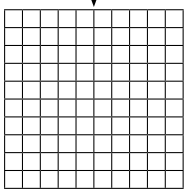
4 tenths
40 hundredths



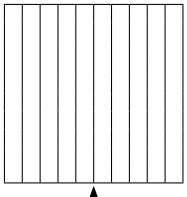
b



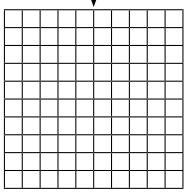
6 tenths
60 hundredths



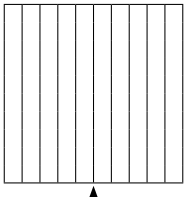
c



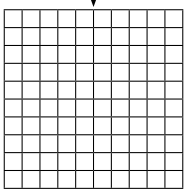
8 tenths
80 hundredths



d



2 tenths
20 hundredths



Math Review Task
Grade 5

Mathletics

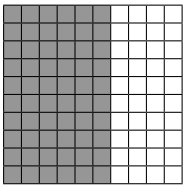
Fractions, Decimals and Percentages:

Fractions, decimals and percentages – percents

Percent means part per hundred and is expressed using the symbol %.

Here, 60% has been shaded grey.

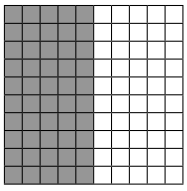
It is the same as 60 hundredths. $\frac{60}{100} = 0.60 = 60\%$



1 **Think of at least five times you see the % sign or use percents:**

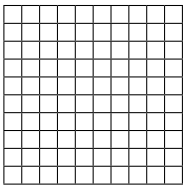
2 **Fill in the missing values and shade the grids:**

a



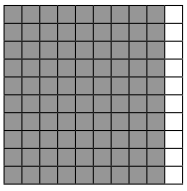
$\frac{50}{100}$	0.	%

b



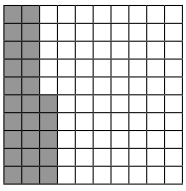
$\frac{30}{100}$	0.3	%

c



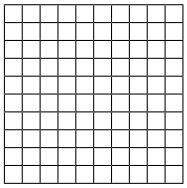
___	0.	90%

d



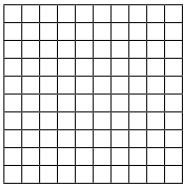
___	0.25	%

e



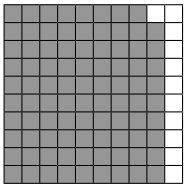
$\frac{45}{100}$	0.	%

f



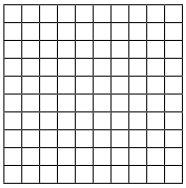
___	0.75	%

g



___	0.	89%

h



___	0.42	%

3 **Are these statements correct?**

a 75% is greater than 0.5 ☐

b One quarter is the same as 50% ☐

c 45% is greater than 0.5 ☐

d 0.42 is equivalent to 425 ☐

e You score 100% on a test. Your friend scores 20/20. You both received the same score. ☐

Math Review Task
Grade 5

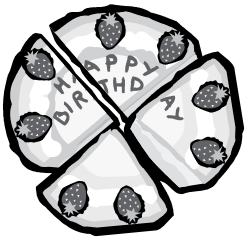
Mathletics

Fractions, Decimals and Percentages:

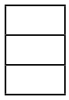
Calculating – adding and subtracting fractions with like denominators

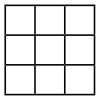
I ate $\frac{2}{4}$ of a cake for breakfast. Then I ate another $\frac{1}{4}$ for lunch. How many quarters did I eat altogether?

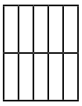
$$\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$$

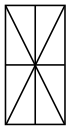


1 **Shade the shapes to help you answer the problems:**

a  $\frac{1}{3} + \frac{1}{3} = \frac{\square}{\square}$

b  $\frac{3}{9} + \frac{3}{9} = \frac{\square}{\square}$

c  $\frac{4}{10} + \frac{3}{10} = \frac{\square}{\square}$

d  $\frac{3}{8} + \frac{2}{8} = \frac{\square}{\square}$

2 **Try these. Draw some diagrams if that will help you.**

a $\frac{1}{5} + \frac{2}{5} = \frac{\square}{\square}$

b $\frac{2}{7} + \frac{3}{7} = \frac{\square}{\square}$

c $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{\square}{\square}$

d $\frac{1}{10} + \frac{5}{10} + \frac{1}{10} = \frac{\square}{\square}$

3 **Write addition fraction sentences for the following problems. Write your answers:**

a $\frac{1}{3}$ of the kids in Bailey's class played basketball at recess. $\frac{1}{3}$ of the kids played football. $\frac{1}{3}$ of the kids sat round and talked. What fraction of the class played sports?

$\frac{\square}{\square} + \frac{\square}{\square} = \frac{\square}{\square}$

b Josh spent $\frac{1}{5}$ of his allowance at the snack bar and $\frac{2}{5}$ buying credits for his game. Write a fraction sentence to show the fraction he spent.

$\frac{\square}{\square} + \frac{\square}{\square} = \frac{\square}{\square}$

4 **Look at the problem $\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$. Why does the 4 stay as 4 – why isn't it $\frac{2}{4} + \frac{1}{4} = \frac{3}{8}$?**

Math Review Task
Grade 5

Mathletics

Fractions, Decimals and Percentages:

Calculating – adding and subtracting whole numbers and fractions

Adding fractions to whole numbers is a simple process.

 $= 1\frac{1}{2}$ $\qquad 1 + \frac{1}{2} = 1\frac{1}{2}$

1 **Add these fractions and whole numbers:**

a $2 + \frac{1}{2} = \square$ **b** $4 + \frac{1}{3} = \square$ **c** $3 + \frac{3}{4} = \square$

d $\frac{1}{2} + 5 = \square$ **e** $\frac{2}{3} + 4 = \square$ **f** $\frac{4}{7} + 9 = \square$

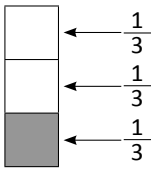
g $\frac{1}{2} + \square = 6\frac{1}{2}$ **h** $\square + \frac{2}{3} = 2\frac{2}{3}$ **i** $\frac{1}{5} + \square = 2\frac{3}{5}$

How do we subtract fractions from a whole? We rename the wholes to make it simpler.

Look at the problem $1 - \frac{1}{3}$.

How many $\frac{1}{3}$ are in 1 whole? There are $\frac{3}{3}$ in a whole.

Now the problem is easier: $\frac{3}{3} - \frac{1}{3} = \frac{2}{3}$



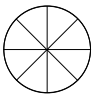
2 **Rename the wholes as fractions and use the diagrams to help you solve these problems:**

a $1 - \frac{2}{5} = \square$ **b** $2 - \frac{1}{3} = \square$

$= \square$ $= \square$

c $1 - \frac{1}{4} = \square$ **d** $2 - \frac{3}{4} = \square$

$= \square$ $= \square$

e $1 - \frac{3}{8} =$  **f** $2 - \frac{1}{4} = \square$

$= \square$ $= \square$

Math Review Task
Grade 5

Mathletics

Fractions, Decimals and Percentages:

Calculating – adding decimals

How do we add decimals using a written strategy?

We arrange the numbers so the place values and the decimal points line up and then we start with the smallest value.

We first add the tenths. 6 tenths and 7 tenths is 13 tenths.

We rename this as 1 whole and 3 tenths.

We write the 3 in the tenths column and move the 1 to the wholes column.

Then we add the wholes. 1 + 1 + 4 = 6

$$\begin{array}{r} {}^{1}1.6 \\ +\ 4.7 \\ \hline 6.3 \end{array}$$

1 **Knowing how to rename is a useful skill when adding fractions. Practise your renaming skills here by color coding the matching boxes:**

10 tenths

18 tenths

68 hundredths

1 tenth and 4 hundredths

4 wholes, 1 tenth and 4 hundredths

23 tenths

414 hundredths

7 wholes and 6 tenths

1 whole

6 tenths and 8 hundredths

2 wholes and 3 tenths

76 tenths

14 hundredths

1 whole and 8 tenths

2 **Add these decimals:**

a
$$\begin{array}{r} 2.6 \\ +\ 3.3 \\ \hline \\ \hline \end{array}$$

b
$$\begin{array}{r} 4.7 \\ +\ 5.4 \\ \hline \\ \hline \end{array}$$

c
$$\begin{array}{r} 5.4 \\ +\ 3.5 \\ \hline \\ \hline \end{array}$$

d
$$\begin{array}{r} 1.5 \\ +\ 12.3 \\ \hline \\ \hline \end{array}$$

e
$$\begin{array}{r} 18.6 \\ +\ 11.2 \\ \hline \\ \hline \end{array}$$

f
$$\begin{array}{r} 9.4 \\ +\ 3.7 \\ \hline \\ \hline \end{array}$$

3 **Now try these. Start with the hundredths and remember to rename if neccessary:**

a
$$\begin{array}{r} 3.46 \\ +\ 5.23 \\ \hline \\ \hline \end{array}$$

b
$$\begin{array}{r} 4.72 \\ +\ 3.19 \\ \hline \\ \hline \end{array}$$

c
$$\begin{array}{r} 7.36 \\ +\ 5.65 \\ \hline \\ \hline \end{array}$$

Math Review Task
Grade 5

Fractions, Decimals and Percentages:

Calculating – subtracting decimals

How do we subtract decimals using a written strategy?

We arrange the numbers so the place values and the decimal points line up and then we start with the smallest value.

We first subtract the tenths. We have 2 tenths, can we subtract 5 tenths from this?

No, so we rename a whole as 10 tenths. Now we have 12 tenths. 12 tenths subtract 5 tenths is 7 tenths.

We have 5 wholes, can we subtract 4 wholes? Yes, the answer is 1 whole.

$$\begin{array}{r} {}^{5}\cancel{6}\,.\,{}^{1}2 \\ -\ 4\,.\,5 \\ \hline 1\,.\,7 \end{array}$$

1 **Solve these subtraction problems:**

a
$$\begin{array}{r} 8\,.\,3 \\ -\ 2\,.\,2 \\ \hline \\ \hline \end{array}$$

b
$$\begin{array}{r} 4\,.\,7 \\ -\ 3\,.\,4 \\ \hline \\ \hline \end{array}$$

c
$$\begin{array}{r} 5\,.\,4 \\ -\ 3\,.\,5 \\ \hline \\ \hline \end{array}$$

d
$$\begin{array}{r} 1\,2\,.\,3 \\ -\ \ 5\,.\,2 \\ \hline \\ \hline \end{array}$$

e
$$\begin{array}{r} 1\,8\,.\,6 \\ -\ 1\,1\,.\,2 \\ \hline \\ \hline \end{array}$$

f
$$\begin{array}{r} 9\,.\,4 \\ -\ 3\,.\,7 \\ \hline \\ \hline \end{array}$$

2 **Now try these. Start with the hundredths and remember to rename if neccessary:**

a
$$\begin{array}{r} 8\,.\,4\,4 \\ -\ 3\,.\,2\,4 \\ \hline \\ \hline \end{array}$$

b
$$\begin{array}{r} 4\,.\,7\,2 \\ -\ 2\,.\,2\,9 \\ \hline \\ \hline \end{array}$$

c
$$\begin{array}{r} 8\,.\,4\,6 \\ -\ 1\,.\,6\,3 \\ \hline \\ \hline \end{array}$$

Sometimes we have to work with numbers that have a different amount of digits such as **8.4 – 5.35**
When this happens, we rename. 4 tenths becomes 40 hundredths: **8.40 – 5.35**

3 **Rename these problems and solve:**

a
$$\begin{array}{r} 9\,.\,5 \\ -\ 2\,.\,2\,4 \\ \hline \\ \hline \end{array}$$

b
$$\begin{array}{r} 6\,.\,1\,7 \\ -\ 2\,.\,3 \\ \hline \\ \hline \end{array}$$

c
$$\begin{array}{r} 9\,.\,3 \\ -\ 4\,.\,7\,2 \\ \hline \\ \hline \end{array}$$

Math Review Task
Grade 5

Mathletics

Multiplication and Division:

Mental multiplication strategies – doubling strategy

Doubling is a useful strategy to use when multiplying.

To multiply a number by four, double it twice.

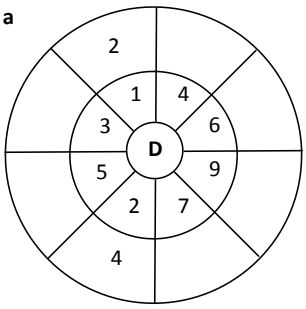
15 × 4 double once = 30
double twice = 60

To multiply a number by eight, double it three times.

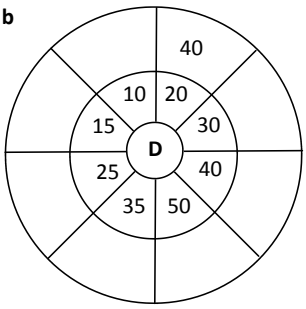
13 × 8 double once = 26
double twice = 52
double three times = 104

1 **Warm up with some doubling practice:**

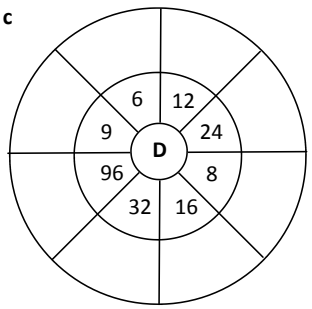
a



b



c



2 **Finish the doubling patterns:**

a 4	8	16		64	
b 3					96
c 5			40		
d 25	50				
e 7		28			224
f 75		300			

3 **Choose a number and create your own doubling pattern. How high can you go? What patterns can you see within your pattern?**

4 **Two sets of twins turn 12. They decide to have a joint birthday party with 1 giant cake but they all want their own candles. How many candles will they need?**

Math Review Task
Grade 5

Mathletics

Multiplication and Division:

Mental multiplication strategies – multiply by 10s, 100s and 1,000s

When we multiply by 10 we move the number one place value to the left.
When we multiply by 100 we move the number two place values to the left.
When we multiply by 1,000 we move the number three place values to the left.
Look at how this works with the number 45:

Ten Thousands	Thousands	Hundreds	Tens	Ones	
			4	5	
		4	5	0	× 10
	4	5	0	0	× 100
4	5	0	0	0	× 1,000

1 **Multiply the following numbers by 10, 100 and 1,000:**

a

T Th	Th	H	T	O	
			1	7	
					× 10
					× 100
					× 1,000

b

T Th	Th	H	T	O	
			4	3	
					× 10
					× 100
					× 1,000

c

T Th	Th	H	T	O	
			8	5	
					× 10
					× 100
					× 1,000

d

T Th	Th	H	T	O	
			9	9	
					× 10
					× 100
					× 1,000

2 **Try these:**

a 14 × 10 = ☐ **b** 14 × 100 = ☐ **c** 14 × 1,000 = ☐

d 92 × 10 = ☐ **e** 92 × 1,000 = ☐ **f** 92 × 100 = ☐

g 11 × 1,000 = ☐ **h** 11 × 100 = ☐ **i** 11 × 10 = ☐

3 **You'll need a partner and a calculator for this activity. Take turns giving each other problems such as "Show me 100 × 678". The person whose turn it is to solve the problem, writes down their prediction and you both check it on the calculator. 10 points for each correct answer, and the first person to 50 points wins.**

Math Review Task
Grade 5

Mathletics

Multiplication and Division:

Mental division strategies – use multiplication facts

Knowing our multiplication facts helps us with division as they do the reverse of each other. They are inverse operations.

$3 \times 5 = 15$ $\quad\quad$ $15 \div 5 = 3$

1 **Use your knowledge of multiplication facts to help answer these division questions:**

a $56 \div 7$ → $\_8\_ \times 7 = 56$ → $56 \div 7 =$ ☐

b $121 \div 11$ → $\_\_\_\_\_ \times 11 = 121$ → $121 \div 11 =$ ☐

c $72 \div 8$ → $\_\_\_\_\_ \times 8 = 72$ → $72 \div 8 =$ ☐

d $49 \div 7$ → $\_\_\_\_\_ \times 7 = 49$ → $49 \div 7 =$ ☐

e $36 \div 9$ → $\_\_\_\_\_ \times 9 = 36$ → $36 \div 9 =$ ☐

f $64 \div 8$ → $\_\_\_\_\_ \times 8 = 64$ → $64 \div 8 =$ ☐

g $108 \div 12$ → $\_\_\_\_\_ \times 12 = 108$ → $108 \div 12 =$ ☐

2 **Now try these:**

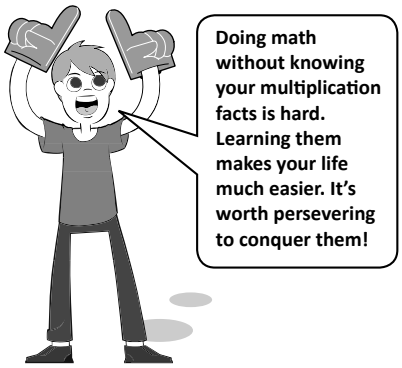
a $81 \div 9 =$ ☐ $\quad$ **b** $40 \div 5 =$ ☐

c $21 \div 3 =$ ☐ $\quad$ **d** $54 \div 6 =$ ☐

e $42 \div 7 =$ ☐ $\quad$ **f** $63 \div 9 =$ ☐

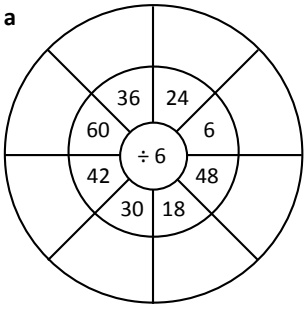
g $36 \div 4 =$ ☐ $\quad$ **h** $45 \div 9 =$ ☐

i $39 \div 3 =$ ☐ $\quad$ **j** $24 \div 6 =$ ☐

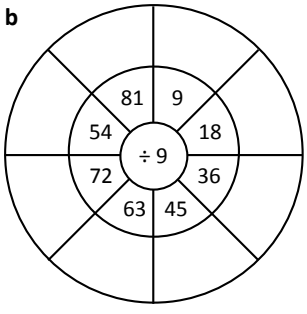


3 **Fill in the division wheels. Use multiplication facts to help you.**

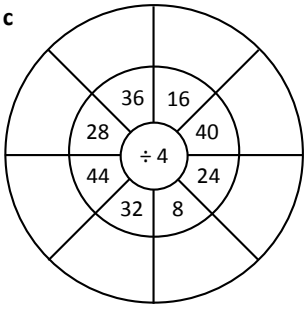
a



b



c



Math Review Task
Grade 5

Multiplication and Division:

Mental division strategies – divide by 10s, 100s and 1,000s

When we divide by 10 we move the number one place value to the right.
When we divide by 100 we move the number two place values to the right.
When we divide by 1,000 we move the number three place values to the right.
Look what happens to 45,000 when we apply these rules:

Ten Thousands	Thousands	Hundreds	Tens	Ones	
4	5	0	0	0	
	4	5	0	0	÷ 10
		4	5	0	÷ 100
			4	5	÷ 1,000

1 **Divide the following numbers by 10, 100 and 1,000:**

a

T Th	Th	H	T	O	
4	5	0	0	0	
					÷ 10
					÷ 100
					÷ 1,000

b

T Th	Th	H	T	O	
4	3	0	0	0	
					÷ 10
					÷ 100
					÷ 1,000

c

T Th	Th	H	T	O	
8	5	0	0	0	
					÷ 10
					÷ 100
					÷ 1,000

d

T Th	Th	H	T	O	
8	8	0	0	0	
					÷ 10
					÷ 100
					÷ 1,000

2 **Draw lines to match the answers with the questions:**

a What number is one thousand times smaller than 32,000?

b What number is one hundred times smaller than 32,000?

c What number is one hundred times smaller than 95,000?

d What number is ten times smaller than 95,000?

e What number is one hundred times smaller than 8,800?

f What number is ten times smaller than 8,800?

9,500

88

950

880

320

32

Math Review Task
Grade 5

Mathletics

Multiplication and Division:

Written methods – single-digit multiplication

	H	T	O
	$^{1}1$	$^{1}5$	6
×			3
	4	6	8

Single-digit multiplication is one way to solve a multiplication problem.
First we use our mental strategies to estimate an easier problem:
3 × 150 = 450. The answer will be around 450.
We start with the ones. 3 × 6 is 18 ones. We rename this as 1 ten and 8 ones.
We put 8 in the ones column and carry the 1 to the tens column.
3 × 5 plus the carried 1 is 16 tens. We rename this as 1 hundred and 6 tens.
We put 6 in the tens column and carry the 1 to the hundreds column.
3 × 1 plus the carried 1 is 4 hundreds. We put 4 in the hundreds column.

1 **Solve these problems using single-digit multiplication. Estimate first:**

a e: ____

	H	T	O
	3	2	7
×			3

b e: ____

	H	T	O
	2	4	7
×			4

c e: ____

	H	T	O
	1	5	4
×			5

d e: ____

	H	T	O
	3	1	5
×			3

e e: ____

	H	T	O
	2	8	6
×			2

f e: ____

	H	T	O
	1	9	4
×			5

2 **Solve these word problems. Show how you worked them out:**

a Dan's dad has stooped to bribery to curb Dan's PlayStation addiction. For every evening, Dan spends away from the PlayStation, his dad pays him $3. So far, Dan has racked up an impressive 27 nights (though he looks like he may give up any day now). How much money does this equate to?

b Dan's mom thinks she might get in on the action too and pays Dan $4 for every week that he puts his dishes in the dishwasher and his dirty clothes in the basket. Dan is less excited about this plan but does manage 33 weeks in 1 year. How much has he made out of this scheme?

Math Review Task
Grade 5

Mathletics

Multiplication and Division:

Written methods – problem solving

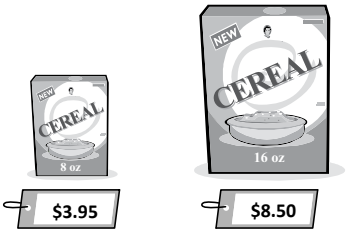
We regularly come across multiplication and division problems in our everyday life. It doesn't matter which strategy we use to solve them, we can choose the one that suits us or the problem best.

1 **One real-life problem is comparing prices to find the best deal. It's easy if the prices and amounts are the same but what if the amounts are different? Use a strategy to help you find the best deal on these:**

a

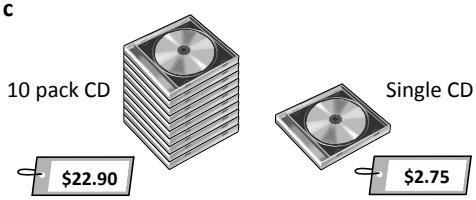
Best deal is _____

b



Best deal is _____

c



Best deal is _____

d

Best deal is _____

2 **You go to the gas station with your weekly allowance of $5. When you take a $1.75 chocolate bar to the counter, they offer you the special of 3 bars for $4.50. Which is a better deal? Show why.**