Name: _____

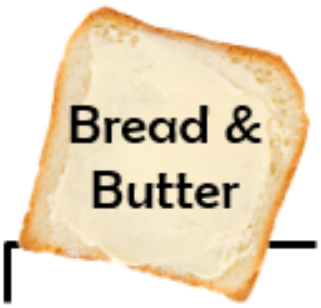
Class: _____

Teacher: _____

Year 8

Term 2

Numeracy Homework Booklet



Week 1

1) $2000 - 1234$	2) Add 7.3 to 92.05.	3) $9.6 \div 6$
4) Decrease 145 by 40%.	5) $\frac{1}{8}$ m = _____ cm	6) Round off 142,736 to two significant figures.
7) What is the mean of 8, 4, 0, 3, 5?	8) 65×97	9) What is the reciprocal of 8?

___ out of 9

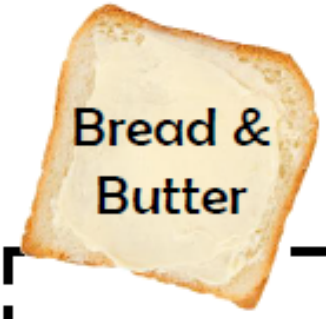
Week 1

Reasoning

Tokyo is 9 hours ahead of London.

It takes 12 hours 50 minutes to fly from Tokyo to London. An aeroplane leaves Tokyo at 14:00 on Friday (Tokyo time). On which day and at which time will the aeroplane reach London?
Give your answer in London time.

___ out of 3



Week 2

1) Increase 70 by 10%.	2) Write down 42% as a decimal.	3) Round off 25.2927 to two decimal places.
4) 100 g of cherries cost £1.30. What is the cost of 2 kg of cherries?	5) 14^2	6) 8 – 2.16
7) Divide £120 between Arwyn and Bertie according to the ratio 19:5.	8) Calculate 2.5% of £150.	9) $\frac{3}{4} - \frac{2}{3}$

___ out of 9

Week 2

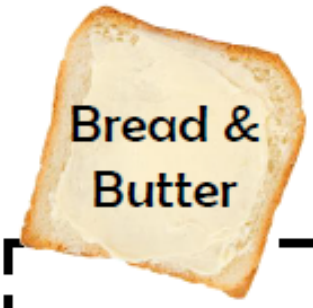
Reasoning

Dylan wishes to buy apple juice for a party.

Small bottle	Medium bottle	Large bottle
300 ml	400 ml	500 ml
72p	88p	£1.25

Which bottle of apple juice provides the best value for money?

___ out of 4



Week 3

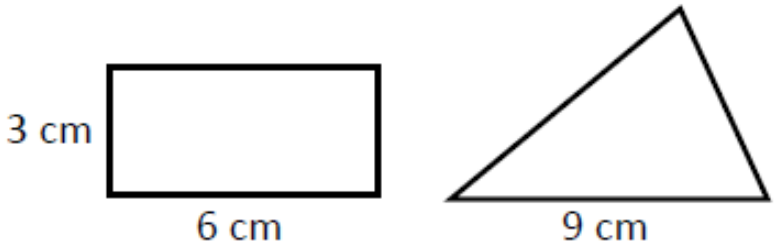
1) Add 81.2 to 9.06.	2) How many quarters are in $3\frac{3}{4}$?	3) Calculate 7 cubed.
4) Increase 2 m by 15%. Give your answer in cm.	5) Write down, in its simplest form, 60% as a fraction.	6) What is the median of 9, 14, 0, 5, 6?
7) 603 × 75	8) The reciprocal of $\frac{1}{14}$ is	9) Round off 0.0254 to one significant figure.

___ out of 9

Week 3

Reasoning

The following rectangle and triangle have the same area. What is the height of the triangle?



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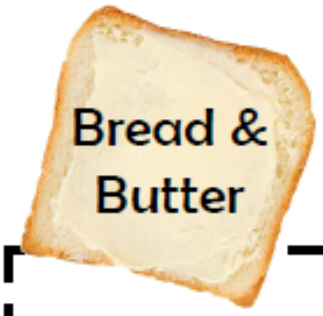


Week 4

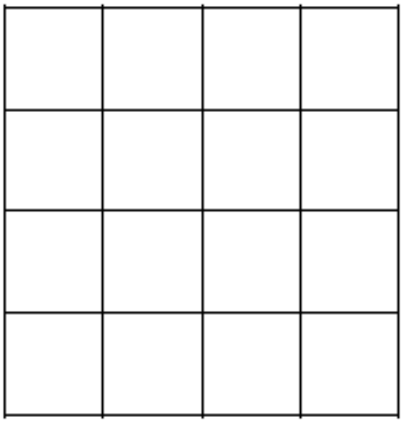
1) _____ + 8.2 = 20	2) 1000 – _____ = 827	3) Calculate 45% of £90.
4) 0.4 × 0.2	5) Round off 9.258 to one decimal place.	6) 83 × 9
7) What is $\frac{1}{2}$ of $\frac{1}{4}$?	8) Simplify the ratio 15:20.	9) $4\frac{1}{4}$ kg = _____ g

___ out of 9

Week 4

Reasoning

How many squares (of any size) can be seen in this picture?



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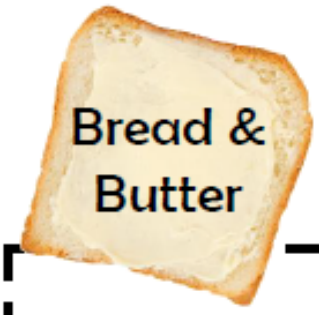


Week 5

1) 87 + 2918 + 382	2) Subtract 0.24 from 2.	3) Calculate $\frac{5}{8}$ of £72.
4) 7 × 0.5	5) Round off 89,002 to one significant figure.	6) Decrease 60 by 30%.
7) $\frac{1}{4}$ of Jim's number is 8. What is $\frac{1}{8}$ of Jim's number?	8) 723 × 64	9) Write down 0.1% as a decimal.

____ out of 9

Week 5

Reasoning

To make a glass of orange squash,

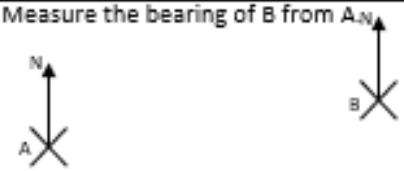
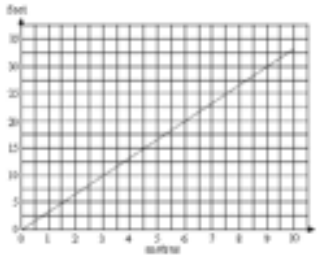
$\frac{1}{20}$ of a bottle of cordial is needed.

$\frac{5}{8}$ of a bottle of cordial remains.

How many glasses of orange squash can be made from this bottle?

___ out of 3

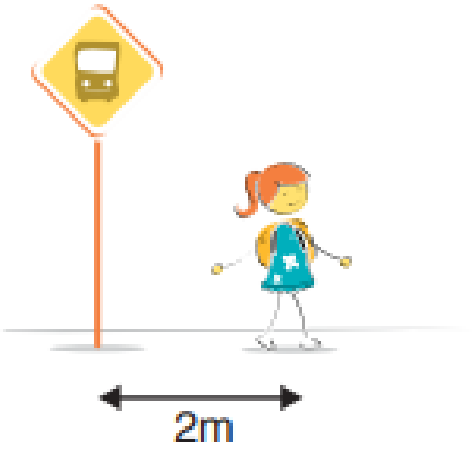
Week 6

1: Double 63	11: In the space below, draw an angle of 30°
2: Calculate -12 - 11	12: Two angles are on a straight line. One of the angles is 43°. Work out the size of the other angle.
3: Calculate 3^3	13: A scale drawing has a scale of 1cm:2km. Work out the real life distance of a length of 5 cm on the map.
4: Calculate √25	14: Measure the bearing of B from A 
5: Write 24 as a product of primes	15: Sam has 3 cards and he buys a more. Write an expression for the number of cards Sam has.
6:  Use this graph to convert 6 metres into feet.	16: Simplify $a + a + a + a + b + b + b$
7: A train journey lasting an hour and a half starts at 4:15 pm. What time does it finish?	17: Find the value of $3a + b$ when $a = 5$ and $b = 2$
8: A car travels for 3 hours at an average speed of 45mph. How far does it travel?	18: Multiply out $3(x + 4)$
9: Calculate 50% of 96	19: A bag contains 3 black counters, 4 red counters and 5 blue counters. A counter is taken at random Write down the probability that it is a black counter.
10: Convert 0.37 to a percentage	20: 6 x 7
Mark:	Effort:

Week 6

This maths question was in a newspaper.

Amy is **2m** from the bus stop.



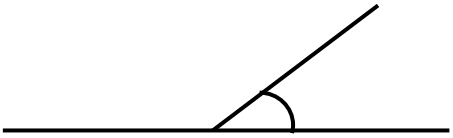
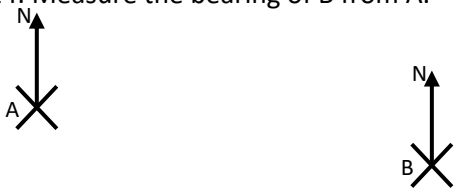
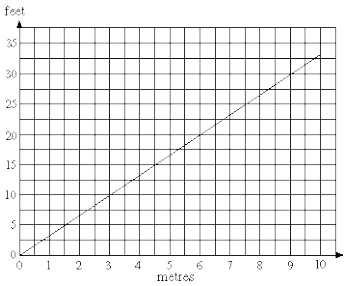
Ben is **6m** from the bus stop.

What is the distance between them?

The newspaper claimed the answer was 4m.

Show why there are many more possible answers.

Week 7

1: Multiply 37 by 100	11: Measure the angle below 
2: Calculate -5 + 13	12: Three angles lie around a point. One of the angles is 68°, and another is 104°, work out the size of the third angle.
3: Calculate 9^2	13: A map has a scale of 1cm:500m. Work out the real life distance of a length of 3 cm on the map.
4: Calculate √100	14: Measure the bearing of B from A. 
5: Write 27 as a product of primes	15: Beth has *b* marbles. Trevor has 5 less than Beth. Write an expression for the number of marbles that Trevor has.
6:  Use this graph to convert 5 feet into metres.	16: Simplify $3 \times c \times d$
7: A car trip starts at 7:10 am and finishes at 7:45 am. How long is the trip?	17: Find the value of $c + 5d$ when $c = 4$ and $d = 6$
8: A train travels 150 miles in 2 hours. What is the average speed of the train in mph?	18: Multiply out $5(x - 2)$
9: Calculate 25% of 84	19: A bag contains 3 black counters, 4 red counters and 5 blue counters. A counter is taken at random Write down the probability that it is a red counter.
10: Convert 87% to a decimal	20: 8 x 9
Mark:	Effort:

Week 7

The picture shows the world's biggest lolly.

It weighs **3175 kilograms**.

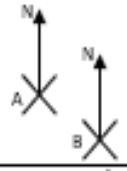
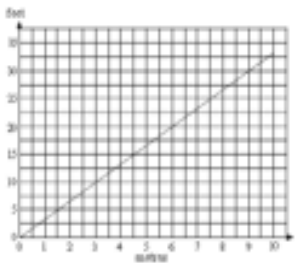
It takes me five minutes to eat a small lolly like this.

It weighs **20 grams**.

If I never stopped eating, how many days would it take me to eat this HUGE lolly?

Work out how many days it would take.

Week 8

1: Fill in the box with the missing number. $27 + \square = 72$	11: In the space below, draw an angle of 75°
2: Calculate -4 ÷ -16	12: Two of the angles in a triangle are 37° and 81°. Work out the third angle.
3: Calculate 2^7	13: A map has a scale of 1cm:200m. Find the length on a map that represents 1km in real life.
4: Calculate √36	14: Measure the bearing of B from A. 
5: Write 32 as a product of primes	15: Sharif has a rope that is c metres long. Peter has a rope that is twice as long. Write an expression for the length of Peter's rope.
6:  Use this graph to convert 8 metres into feet.	16: Simplify $5e + 2f + 4e + 9f$
7: A flight lasting 3 hours and 45 minutes lands at 7:50 pm. What time did the flight take off?	17: Find the value of $3e - 2f$ when $e = 6$ and $f = 7$
8: A cyclist travels 20 miles at an average speed of 5 mph. How long does the cyclist take?	18: Multiply $8(x + 5)$
9: Calculate 75% of 24	19: A bag contains 3 black counters, 4 red counters and 5 blue counters. A counter is taken at random Write down the probability that it is a blue counter.
10: Convert $\frac{1}{10}$ to a decimal	20: 12 x 11
Mark:	Effort:

Week 8

James has to be at work by 9:00 a.m. and it takes him 15 minutes to get dressed, 20 minutes to eat and 35 minutes to walk to work. What time should he get up?

Three ducks and two ducklings weigh 32 kg. Four ducks and three ducklings weigh 44kg. All ducks weigh the same and all ducklings weigh the same. What is the weight of two ducks and one duckling?