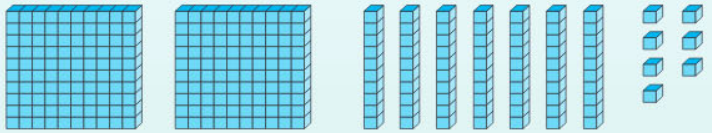
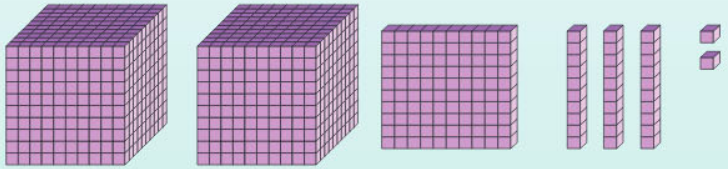
Card 1 Diagnostic Quizzes

Orange

Number and Place Value

Write the numbers represented by the materials below.

1 

2 

Supply the two missing numbers in each number sentence.

3	65		75	80		90	95
4	85	95		115	125	135	
5	165	155	145		125		105
6	37	137	237		437		637
7	1113	1123		1143	1153		1173

8 Write the largest number you can using digits 3 1 5 and 7 .

9 Write the smallest number you can using digits 6 7 9 and 3 .

10 Write the number six thousand, two hundred and fifty-six.

ones tens hundreds thousands tens of thousands

Give the place value of each bold digit in the numbers below.

11 36**2**3

12 4**7**56

13 13 75**4**

14 **6**7 235

Write the two numbers that are missing from the expanded numbers below.

15 7342 = 7000 + ☐ + 40 + ☐

16 5379 = ☐ + 300 + ☐ + 9

17 46 386 = ☐ + 6000 + ☐ + 80 + 6

Round each number to the nearest 100.

18 397 ☐ 19 263 ☐ 20 1399 ☐

Round each number to the nearest 10.

21 97 ☐ 22 383 ☐ 23 1253 ☐

Write the numbers that are missing from the expansion below.

5 thousands 3 hundreds 7 tens 8 ones

24 ☐☐ hundreds 7 tens 8 ones

25 ☐☐☐ tens 8 ones

5 3 7 8 ones

Orange

Addition

Three people each showed how they solved these additions using different strategies.

47 + 32	Tony split the numbers into tens and ones. 40 + 30 + 7 + 2 = 79
46 + 39	Lena rounded 39 to 40, then subtracted one. 46 + 40 – 1 = 85
123 + 46	James split the 46 into 4 tens and 6 ones. 123 + 40 + 6 = 169

Use the strategies above or any other strategy to solve the additions.

1 53 + 24 = ☐

2 47 + 28 = ☐

3 56 + 24 = ☐

4 123 + 42 = ☐

5 135 + 37 = ☐

6 463 + 125 = ☐

7 248 + 35 = ☐

8 1234 + 52 = ☐

Round both numbers to the nearest 10 to estimate an answer for:

9 39 + 87 = ☐

10 134 + 39 = ☐

Round both numbers to the nearest 100 to estimate an answer for:

11 387 + 213 = ☐

12 1289 + 307 = ☐

Solve the additions.

13

Hundreds	Tens	Ones
	5	3
+	2	4

14

Hundreds	Tens	Ones
2	4	8
+ 7	3	1

15

Hundreds	Tens	Ones
3	0	7
+ 4	3	8

16

Hundreds	Tens	Ones
6	8	8
2	4	5
+	3	2

17

Thous	Hund	Tens	Ones
8	0	8	8
+ 3	6	4	9

18

Thous	Hund	Tens	Ones
8	6	6	8
+	8	7	4

19 Jackson bought a new watch and a tennis racquet. How much did he spend? ☐

20 Sally had saved $4056 towards a new jet ski. How much more does she need to save? ☐

Orange

Subtraction

Answer the subtraction facts.

1 $9 - 6 =$ ☐

2 $7 - 4 =$ ☐

3 $8 - 3 =$ ☐

4 $10 - 7 =$ ☐

5 $18 - 6 =$ ☐

6 $19 - 5 =$ ☐

Answer the subtraction facts.

7

−4	7	17	27	37

8

−5	12	22	32	42

Three people demonstrated their strategies to solve subtraction number sentences.

156 – 34	Anna split the second number into tens and ones. 156 – 30 – 4 = 122
900 – 600	Joseph knew that 9 – 6 = 3 so 9 tens – 6 tens must equal 30 and 9 hundreds – 6 hundreds equals 300.
87 – 32	Sara adjusted the numbers and took 2 off both. 87 – 32 became 85 – 30 = 55

Use the strategies above or any other strategy to solve the subtractions below.

9 $97 - 62 =$ ☐

10 $900 - 400 =$ ☐

11 $192 - 64 =$ ☐

12 $487 - 56 =$ ☐

Write two addition and two subtraction number sentences using the following numbers: 15 7 8

13 ☐ ☐ ☐ ☐

Solve the subtractions.

14

Hundreds	Tens	Ones
	7	3
−	2	4

15

Hundreds	Tens	Ones
	9	4	8
−	7	3	4

16

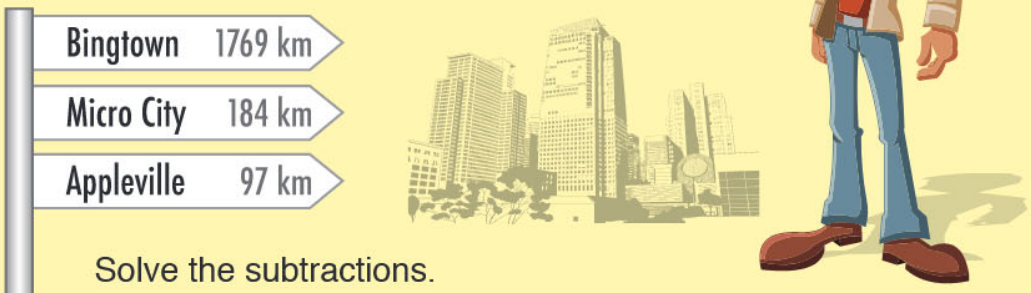
Hundreds	Tens	Ones
	7	8	0
−	4	3	8

17

Thous	Hund	Tens	Ones
	8	0	7	6
−	1	6	0	9

18

Thous	Hund	Tens	Ones
	6	5	6	8
−		8	7	3



Solve the subtractions.

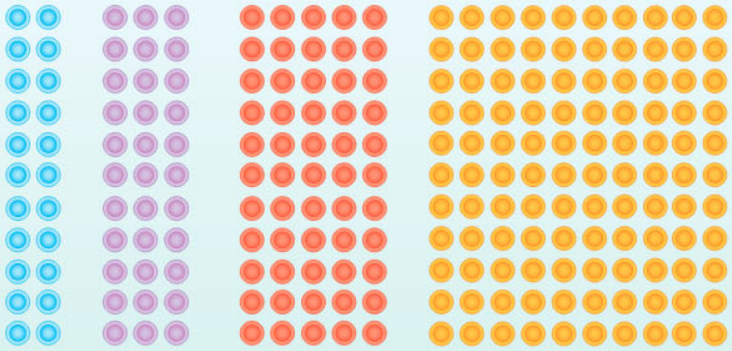
19 What is the difference in distance between Bingtown and Micro City? ☐

20 What is the difference in distance between Micro City and Appleville? ☐

Card 4 Diagnostic Quizzes

Orange

Multiplication



Answer the following multiplication facts. The arrays may help you.

1 $6 \times 2 =$ ☐

2 $5 \times 3 =$ ☐

3 $7 \times 5 =$ ☐

4 $7 \times 10 =$ ☐

5 $9 \times 3 =$ ☐

6 $8 \times 5 =$ ☐

$3 \times 6 =$

Use repeated addition to solve these multiplication facts. An example of $3 \times 6 = 18$ has been illustrated above. (6 + 6 + 6 = 18)

7 $3 \times 3 =$ ☐

8 $4 \times 4 =$ ☐

9 $5 \times 5 =$ ☐

10 $6 \times 4 =$ ☐

11 $4 \times 5 =$ ☐

12 $4 \times 6 =$ ☐

Lyla had some strategies to multiply by different numbers.
To multiply by 2 she doubled the number.
To multiply by 4 she doubled and doubled again.
To multiply by 8 she doubled, doubled and doubled again.
To multiply by 6 she multiplied by 3, then doubled it.

Use these strategies or any strategies or facts that you know to answer the following questions.

13 $6 \times 8 =$ ☐

14 $7 \times 6 =$ ☐

15 $9 \times 4 =$ ☐

16 $8 \times 7 =$ ☐

17 Write the next five multiples of 9. 9 ☐ ☐ ☐ ☐ ☐

You can use place value to multiply larger numbers.
For example, 26×4 can become $20 \times 4 + 6 \times 4 = 104$
(80 and 24)

Use this strategy or any strategies or facts to answer the questions below.

18 $24 \times 5 =$ ☐

19 $26 \times 4 =$ ☐

20 $34 \times 7 =$ ☐

21 $56 \times 6 =$ ☐

Solve the multiplications.

22

Hundreds	Tens	Ones
	2	8
×		5

23

Hundreds	Tens	Ones
	3	6
×	3	0

24

Hundreds	Tens	Ones
1	2	8
×		7

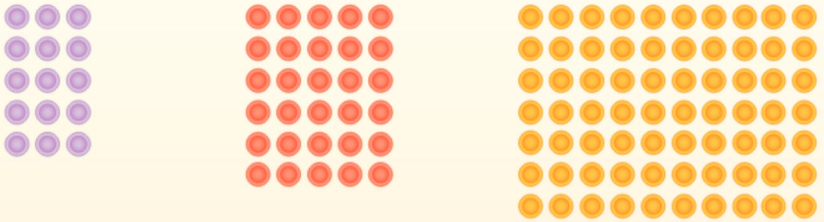
25

Thous	Hund	Tens	Ones
1	3	5	7
×			9

Orange

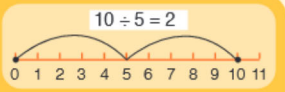
Division

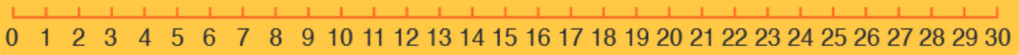
Use the arrays to answer the questions.



1 $15 \div 5 =$ ☐ 2 $30 \div 6 =$ ☐ 3 $70 \div 7 =$ ☐

Use repeated subtraction to answer the questions.
The number line below may assist you.





4 $12 \div 4 =$ ☐ 6 $18 \div 3 =$ ☐ 8 $30 \div 5 =$ ☐

5 $20 \div 4 =$ ☐ 7 $24 \div 6 =$ ☐ 9 $24 \div 3 =$ ☐

Jack had some division strategies he remembered.
To divide by 2 he halved the number.
To divide by 4 he halved and halved again.
To divide by 8 he halved, halved and halved again.

Use these strategies or any strategy you wish to answer the following divisions.

10 $12 \div 2 =$ ☐ 12 $32 \div 8 =$ ☐ 14 $48 \div 8 =$ ☐

11 $36 \div 4 =$ ☐ 13 $24 \div 4 =$ ☐ 15 $64 \div 4 =$ ☐

Write a multiplication fact that you could use to check the correctness of the division fact below.

16 ☐ × ☐ = ☐ $35 \div 7 = 5$

Solve these harder divisions. Some answers may require a remainder.

17 $42 \div 7 =$ ☐ 18 $47 \div 9 =$ ☐ 19 $53 \div 6 =$ ☐

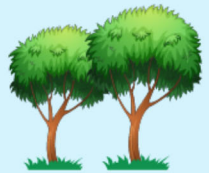
Solve these divisions.

20 $3\overline{)72}$ ☐ 22 $4\overline{)38}$ ☐

21 $6\overline{)858}$ ☐ 23 $7\overline{)997}$ ☐

Solve the problems.

24 Fifty-six pieces of fruit were equally shared between seven families. How many pieces of fruit did each family receive? ☐



25 The farmer planted 198 trees in 9 equal rows. How many trees were in each row? ☐

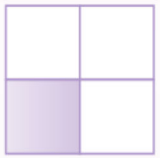
Orange

Fractions and Decimals 1

Write a fraction to describe the shaded part of each shape.

 = $\frac{1}{3}$

1  $\frac{\square}{\square}$

2  $\frac{\square}{\square}$

3  $\frac{\square}{\square}$

Write a fraction to describe the shaded part of each group.

4  $\frac{\square}{\square}$

5  $\frac{\square}{\square}$

Sam

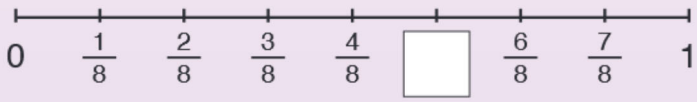
6 Sam has folded his paper strip into quarters. Has he done it correctly?

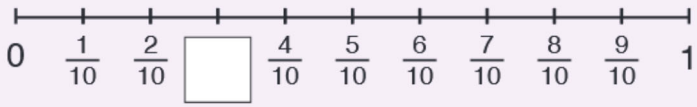
Leah

7 Leah has folded her paper strip into fifths. Has she done it correctly?

Supply the missing fractions on the number lines below.

8 

9 

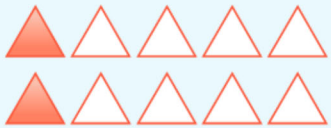
10 

Write a fraction to describe the shaded part of each shape or group.

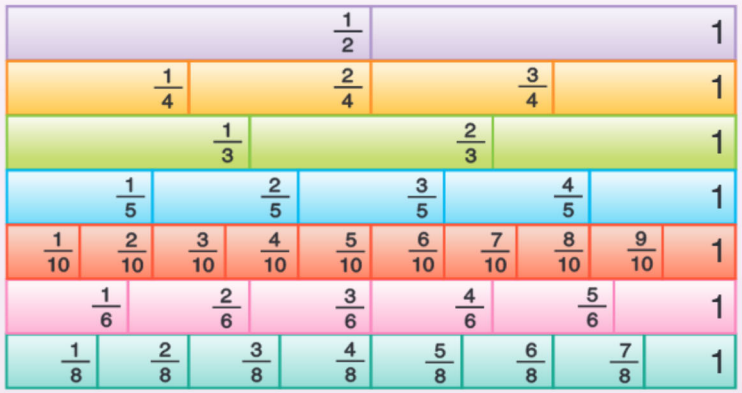
11  $\frac{\square}{\square}$

12  $\frac{\square}{\square}$

13  $\frac{\square}{\square}$

14  $\frac{\square}{\square}$

= equal to
> greater than
< less than



Use the fraction wall above to answer **true** or **false** to these statements.

15 $\frac{1}{2} = \frac{2}{4}$ ☐

16 $\frac{1}{4} = \frac{2}{8}$ ☐

17 $\frac{1}{2} > \frac{1}{4}$ ☐

18 $\frac{1}{4} > \frac{1}{3}$ ☐

19 $\frac{1}{4} = \frac{4}{8}$ ☐

20 $\frac{1}{2} = \frac{5}{10}$ ☐

21 $\frac{1}{5} = \frac{2}{10}$ ☐

22 $\frac{1}{10} > \frac{1}{2}$ ☐

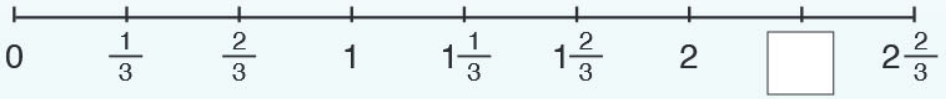
23 $\frac{1}{4} < \frac{1}{3}$ ☐

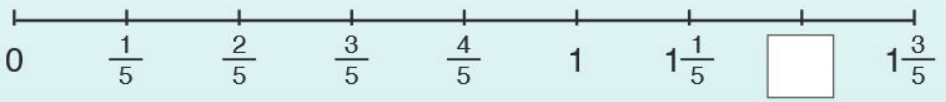
24 $\frac{1}{8} > \frac{1}{2}$ ☐

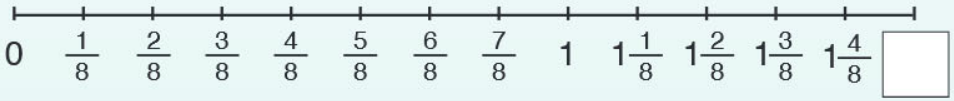
25 $\frac{3}{4} = \frac{6}{8}$ ☐

Fractions and Decimals 2

Write the missing mixed numerals.

1 

2 

3 

Answer **true** or **false**.

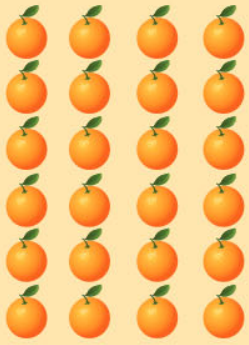
4 $\frac{1}{2}$ is equivalent to $\frac{5}{10}$ ☐

5 $\frac{1}{4}$ is equivalent to $\frac{2}{8}$ ☐

Order these fractions from smallest to largest.

6 | $\frac{1}{4}$ | $\frac{1}{8}$ | $\frac{1}{3}$ | ☐ | ☐ | ☐ |

7 | $\frac{2}{10}$ | $\frac{2}{5}$ | $\frac{2}{8}$ | ☐ | ☐ | ☐ |



Find the fractions of the group of 24 oranges.

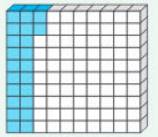
8 $\frac{1}{4}$ of 24 oranges ☐

9 $\frac{1}{6}$ of 24 oranges ☐

10 $\frac{1}{3}$ of 24 oranges ☐

Write a fraction and a decimal to describe the shaded part of each shape.

11  ☐/10 0.☐

12  ☐/100 0.☐

Write these fractions as decimals.

13 $\frac{7}{10}$ = ☐

14 $\frac{9}{10}$ = ☐

15 $\frac{27}{100}$ = ☐

16 $\frac{7}{100}$ = ☐

Write these decimals as fractions.

17 0.1 = ☐/☐

18 0.4 = ☐/☐

19 0.71 = ☐/☐

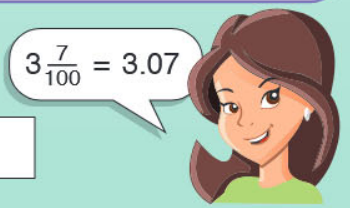
20 0.25 = ☐/☐

ones tens hundreds tenth
hundredths thousands thousandths

Use the words in the orange box above to write the place value of the **bold** digits below.

21	5**2**.31	
22	37**6**.45	
23	29.7**3**	

Write these mixed numerals in decimal form.



24 $5\frac{7}{10}$ = ☐.

25 $6\frac{35}{100}$ = ☐.

Orange

Number Patterns

Even numbers are numbers that pair equally, e.g. 8 = 
Odd numbers do not pair equally.

Write **odd** or **even** to classify the numbers.

1	3		4	13	
2	10		5	30	
3	9		6	43	

Answer **yes** or **no**.

7 Do you get an odd number if you add an odd number to an even number?

8 Do you get an odd number if you add two odd numbers together?

Continue these number patterns.

9	17	27	37	47			
10	50	45	40	35			
11	112	115	118	121			
12	40	36	32	28			

Apply the rules to complete the number patterns.

13 Adding 7

7			

14 Subtracting 4

38			

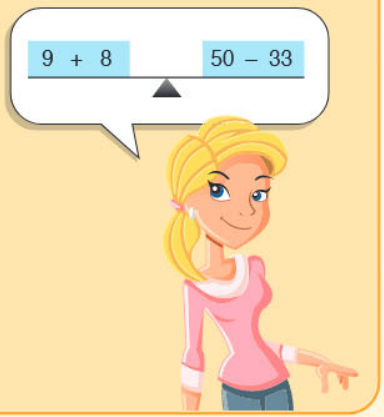
Supply the missing numbers on the balance scales.

15 $9 + \square$ = $36 - 23$

16 $\square + 26$ = 10×4

17 $23 + 27$ = $\square - 17$

18 $9 \times \square$ = $60 - 33$



Continue these number patterns.

19	3	6	9	12			
20	6	12	18	24			
21	8	16	24	32			

22 What would be the **tenth** term in this number pattern?

7	14	21	28	35	....	

Write a number sentence to solve each problem.

23 Sam placed 6 rows of counters. If each row had 7 counters, how many counters were there in total?

24 Sia spent $37 at the hairdressers and $137 on clothes. How much did she spend?

25 Tom bought 5 pens that cost him a total of $30. How much were they each?

Orange

Length

Measure the lengths of these arrows in centimetres.

1 ⟶ ☐

2 ⟶ ☐

3 ⟶ ☐

Rectangle A	Rectangle B

4 What is the length of rectangle A? ☐ cm

5 What is the width of rectangle A? ☐ cm

6 What is the length of rectangle B? ☐ cm

7 What is the width of rectangle B? ☐ cm

Would you use **centimetres** or **metres** to measure the lengths of the following items?

8 The length of a marking pen ☐

9 The length of a classroom ☐

10 The length of a cricket pitch ☐

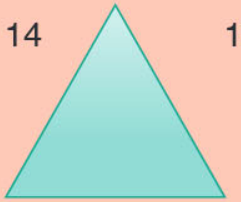
There are 10 millimetres (mm) in a centimetre (cm).
Measure the length of each line in millimetres.

11 _____ ☐ mm

12 _____ ☐ mm

Calculate the perimeter of the shapes below in centimetres.

13  ☐ cm

14  ☐ cm

15  ☐ cm

Convert these measurements.

16 2 metres = ☐ centimetres

17 3 centimetres = ☐ millimetres

18 50 millimetres = ☐ centimetres

19 300 centimetres = ☐ metres

30 cm ruler	tape measure	1 m ruler

Which measuring device from the orange box would you use to measure:

20 the boundary of a garbage bin? ☐

21 the length of a book? ☐

22 the length of the school canteen? ☐

Record the heights of the children in decimal notation.

23 
Sophie is 1 metre and 37 centimetres.
. ☐ m

24 
Maria is 1 metre and 47 centimetres.
. ☐ m

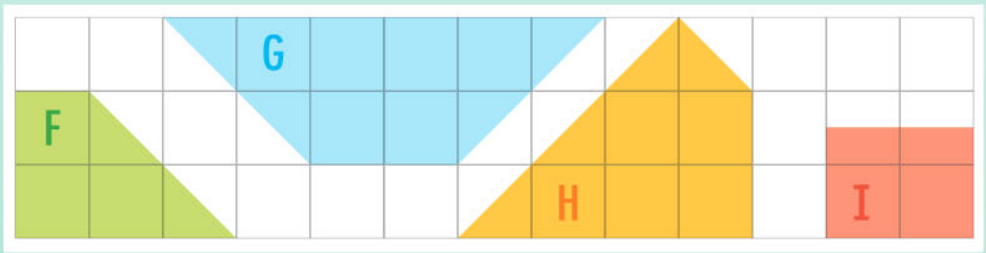
25 
Jake is 1 metre and 83 centimetres.
. ☐ m

Orange

Area

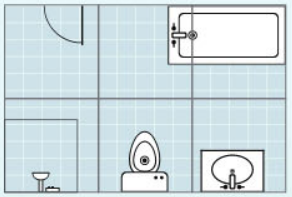
Each square above is equal to 1 square centimetre (1 cm²). Count the squares to calculate the areas of the shapes above in square centimetres (cm²).

1 shape A
2 shape B
3 shape C
4 shape D
5 shape E



Calculate the areas of these shapes in square centimetres (cm²).

6 shape F
7 shape G
8 shape H
9 shape I



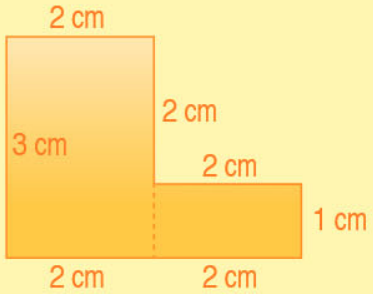
bathroom

Larger areas are measured in square metres. The sign and the bathroom have been divided into square metres (m²). What is the area of the shapes above in square metres (m²)?

10 The Visit New South Wales sign
11 The bathroom
12 How many square metres larger is the sign than the bathroom?

Write **m²** or **cm²** to state the unit you would use to measure the areas of:

13 a piece of paper.
14 a postage stamp.
15 an assembly hall.
16 a small block of land.
17 a post-it tag.
18 a netball court.



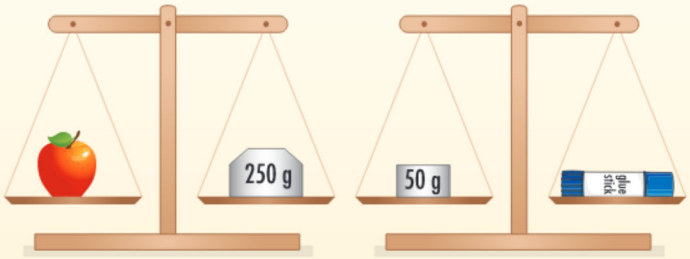
19 Calculate the area of the rectangle above.
20 Calculate the area of the L shape above.

Card 11 Diagnostic Quizzes

Orange

Mass

Mass is measured in grams (g), kilograms (kg) and tonnes (t). There are 1000 g in 1 kg and 1000 kg in 1 t.



Use the various scales to answer the questions. What is the mass of:

1 the apple? ____ g

2 the glue stick? ____ g

3 Eli? ____ kg

4 Sam? ____ kg

5 the tape dispenser? ____ kg

6 the rockmelon? ____ kg

7 the sauce? ____ g

8 the orange? ____ g

9 How many apples would be needed to match the mass of the rockmelon? ____

10 How many rockmelons would be needed to match Sam's mass? ____

11 How many oranges would be needed to match the mass of the tape dispenser? ____

12 How many glue sticks would make a 1 kg mass? ____

13 How many sauces would be needed to match the mass of the tape dispenser? ____

Write **t**, **kg** or **g** to state the mass unit that would be used to measure the mass of:

14 a woman. ____

15 a marking pen. ____

16 a large elephant. ____

17 a bag full of potatoes. ____

18 a large truck. ____

Convert the following mass units to other mass units.

19 2 kg = ____ g

20 3000 g = ____ kg

21 5000 kg = ____ t

22 2½ kg = ____ g

23 3½ t = ____ kg

Solve the problems.

24 A gorilla has a mass of 200 kg. Looking at the bathroom scales on the left, how many children with Sam's mass would be needed to balance a gorilla? ____

25 An elephant has a mass of 5 t. How many gorillas would be needed to match the mass of an elephant? ____

Orange

Volume and Capacity

Capacity can be measured in litres (L).
There are 1000 millilitres (mL) in a litre.

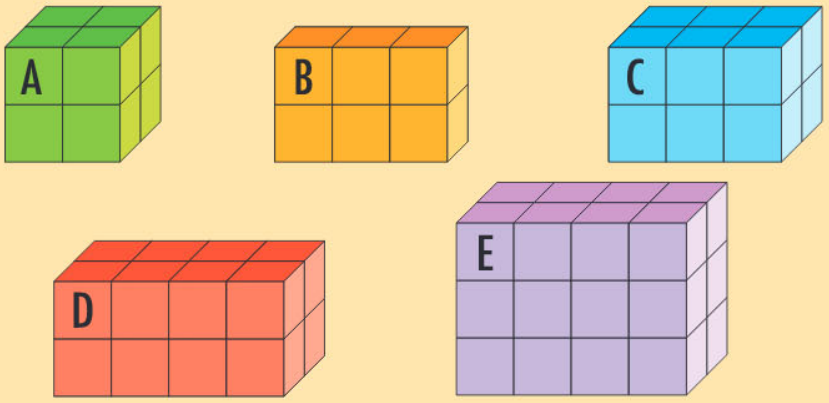
250 mL 100 mL 250 mL 500 mL 50 mL 1 L

How many of each item would be needed to fill a 1 litre container?

1 teacup ____
2 shampoo ____
3 juice ____
4 paint ____
5 medicine ____

The above containers were filled with water and poured into millilitre measuring cylinders. Record the capacity of each one.

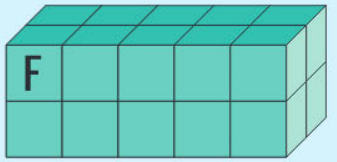
6 the capacity of the cola can ____
7 the capacity of the margarine container ____
8 the capacity of the coffee mug ____
9 How many more millilitres is the coffee mug than the cola can? ____
10 How many more millilitres is the margarine than the cola can? ____



Volume can be measured in cubic centimetres (cm³). The objects above are built from cubic centimetres. What is the volume of:

11 object A? ____
12 object B? ____
13 object C? ____
14 object D? ____
15 object E? ____

16 How many cubic centimetres larger is object D than object C? ____



17 What is the length of object F built from cubic centimetres? ____

18 What is the width of object F built from cubic centimetres? ____

19 What is the height of object F built from cubic centimetres? ____

20 What is the volume of object F? ____

Orange

Time

Write the times displayed by each clock.

1 ____ past ____

2 ____ past ____

3 ____ to ____

4 ____ past ____

5 ____ to ____

Which clock face in the green box does each digital clock match? Answer A, B, C, D or E.

6 5:15 ____

7 11:35 ____

8 10:45 ____

9 1:17 ____

10 2:38 ____

A

B

C

D

E

Write the **am** or **pm** digital times for the following clocks. For example, 2:35 **pm**.

11 morning ____

12 morning ____

13 evening ____

14 afternoon ____

15 How many minutes does it take the minute hand to move from one number to the next? ____

16 How many minutes does it take the minute hand to move from 12 to 3? ____

Bus Timetable

Hopper St	Frog St	James St	Lily Rd
6:30	6:35	6:40	6:45
7:00	7:05	7:10	7:15
7:30	7:35	7:40	7:45
8:00	8:05	8:10	8:15
8:30	8:35	8:40	8:45
9:00	9:05	9:10	9:15

17 What time does the 6:30 bus from Hopper St arrive at Lily Rd? ____

18 How long does the 8:35 bus from Frog St take to reach Lily Rd? ____

SEPTEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

OCTOBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

19 What day of the week is October 24? ____

20 Use the following clues to find the secret date from the calendars above.
- I am not an even number
- I am not a Saturday, Sunday, Tuesday, Wednesday or Thursday
- I can be divided equally by 3
- I am a number between 9 and 21.

____

Money and Financial Mathematics

Write the amounts of money in dollars and cents.

1  $.

2  $.

Round these amounts to the nearest 5c.

3 64c

4 $1.24

5 49c

6 $1.38

Calculate the change from $1.00 if you bought:

7 a ruler.

8 a lollipop.

Calculate the cost of the following purchases. Round your answers to the nearest 5c.

9 a lollipop and a pencil

10 a ruler and a paperclip

11 a lollipop and a paperclip

How much change would you get from $2.00 if you bought the following? Round your answers to the nearest 5c.

12 an apple

13 a book

14 a comb

15 a pen

16 a sharpener

17 a sharpener and a comb

18 an apple and a comb

19 Jackson bought a tennis racquet and a pair of football boots. What was the total cost of his purchase?

20 Anna bought a cricket bat, a mitt and a soccer ball. How much change did she get from $250?

Three-Dimensional Objects (3D)

prism cone cube cylinder triangular sphere pyramid rectangular hexagonal square

Use the words in the orange box to name the objects above.

1 object A
2 object B
3 object C
4 object D
5 object E
6 object F
7 object G
8 object H

9 Which objects above have curved surfaces?

10 Does a hexagonal prism have 8 faces?

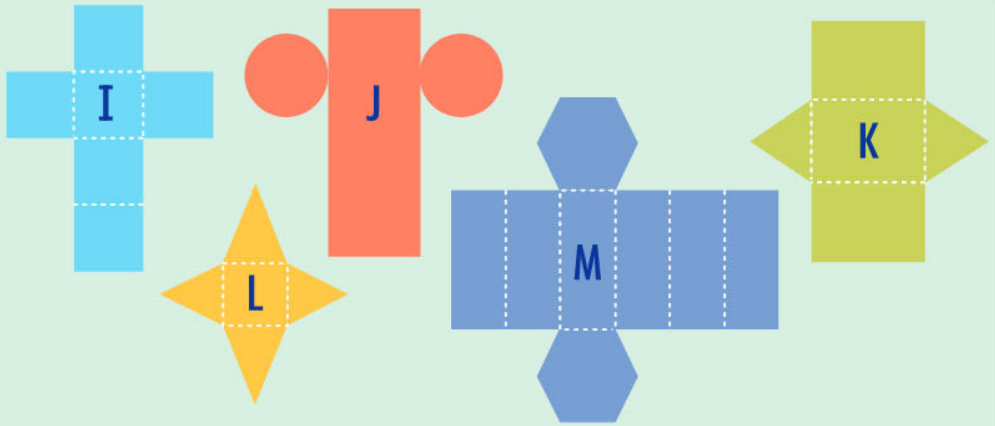
11 Does a square pyramid have 8 vertices (corners)?

12 Which object could be made from the faces above?

13 Which object could be made from 6 square faces?

14 Which object could be made from 1 square and 4 triangular faces?

15 Are prisms and pyramids named from their bases?

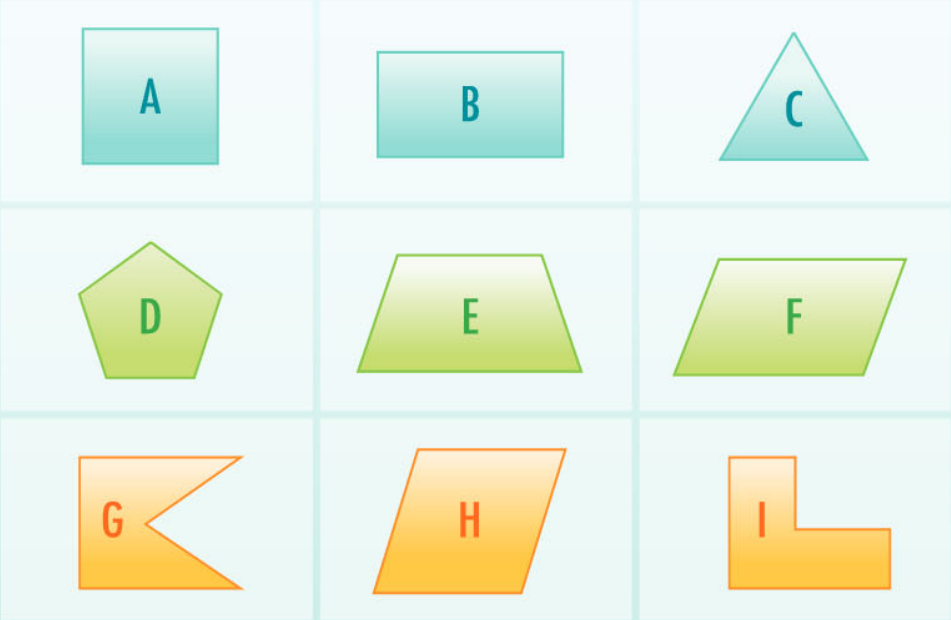


Which object would the nets above fold to make?

16 net I
17 net J
18 net K
19 net L
20 net M

Orange

Two-Dimensional Shapes (2D)



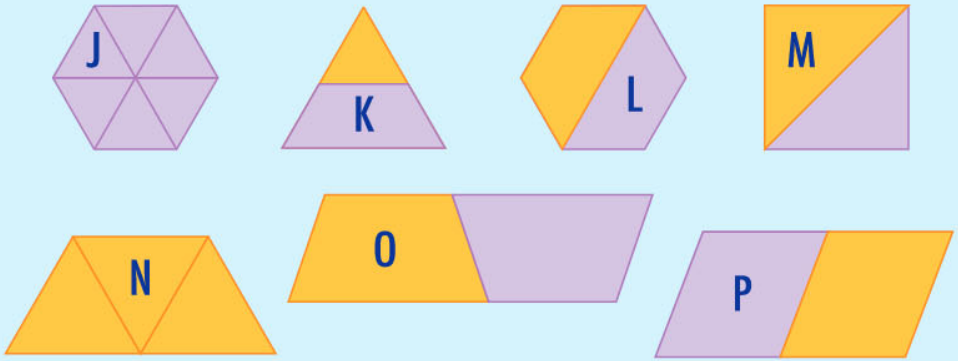
irregular square rhombus rectangle triangle
hexagon pentagon trapezium parallelogram

Use the words in the orange box to name the shapes above.

1 shape A
2 shape B
3 shape C
4 shape D
5 shape E
6 shape F
7 shape G
8 shape H
9 shape I

10 Which shapes are quadrilaterals?

11 Which shapes are parallelograms?



Name the shapes used to make:

12 triangle K.
13 hexagon L.
14 square M.
15 trapezium N.
16 parallelogram O.
17 hexagon J.
18 parallelogram P.

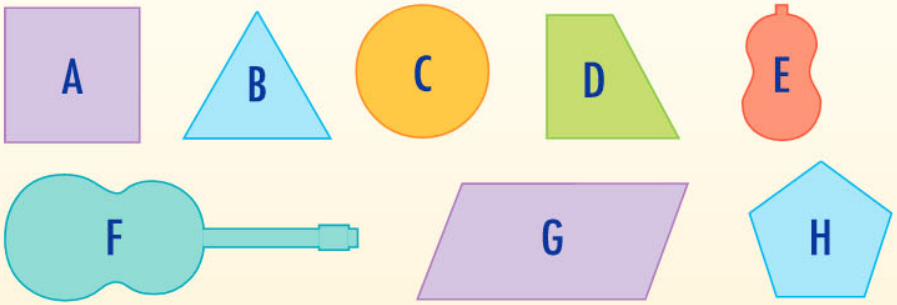
19 Divide the trapezium into two triangles and a square.

20 Divide this shape into two trapeziums and two triangles.

Orange

Symmetry

Lines of symmetry divide a shape exactly in half.

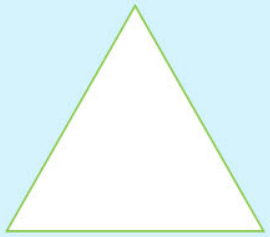


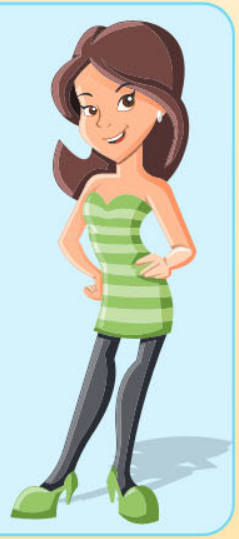
Write **yes** or **no** to state which shapes above have symmetry.

1 shape A ____
2 shape C ____
3 shape D ____
4 shape B ____
5 shape E ____
6 shape H ____
7 shape G ____
8 shape F ____

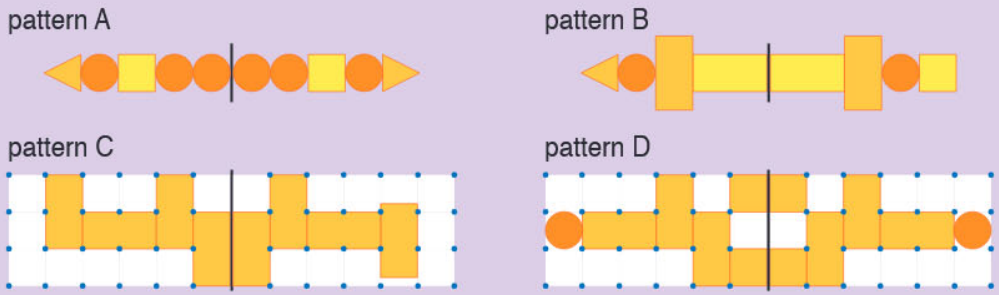
9 Draw lines of symmetry on the square.

10 Draw lines of symmetry on the triangle.





11 How many lines of symmetry are there on a rectangle?

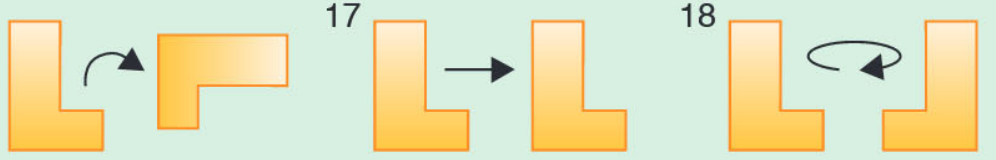


Write **yes** or **no** to state which patterns above are symmetrical.

12 pattern A ____
13 pattern B ____
14 pattern C ____
15 pattern D ____

Shapes need to be **flipped**, **slid** or **turned** to make symmetrical patterns. Use these words to describe the movements of the shapes below.

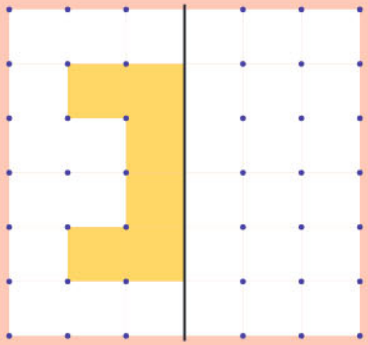
16 17 18



____ ____ ____

Use the line of symmetry given to creat the other half of the shape or pattern.

19



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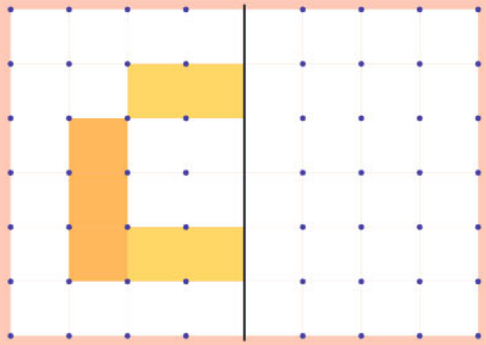
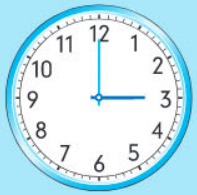
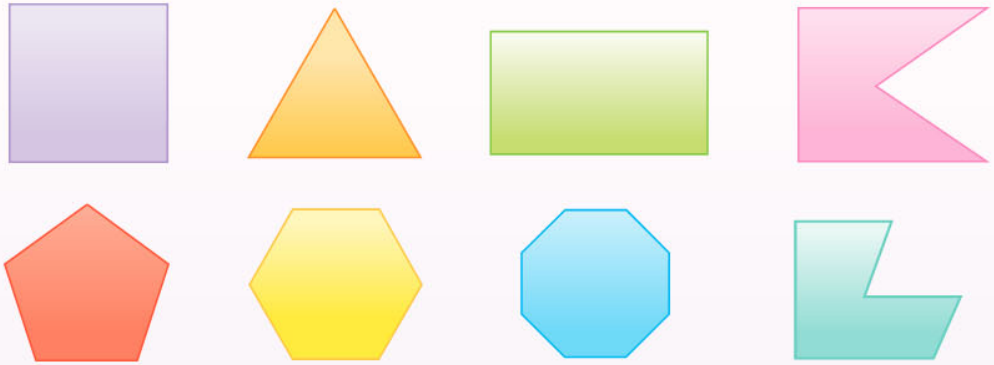


Orange

Angles

A common angle is a right angle.
It is like the corner of a square or three o'clock on the clock face.

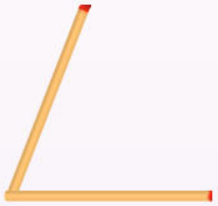




Write the words **smaller**, **larger** or **right angle** to compare the angles to a right angle.

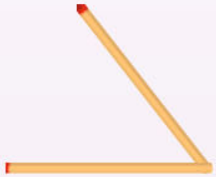
1

2

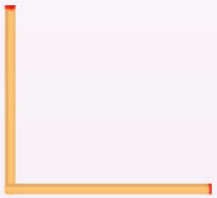


3

4



5



6

7

How many angles are there on:

8 a square? ____

9 a triangle? ____

10 a rectangle? ____

11 a pentagon? ____

12 a hexagon? ____

13 an octagon? ____

14 an irregular pentagon? ____

15 an irregular hexagon? ____

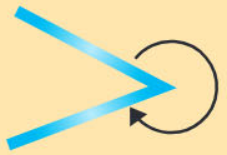
16 Which shapes have 4 right angles? ____

17 Which shape has 3 angles smaller than a right angle? ____

18 Which shape has 5 angles larger than a right angle? ____

19 Draw an angle smaller than a right angle.

20 Name this angle.

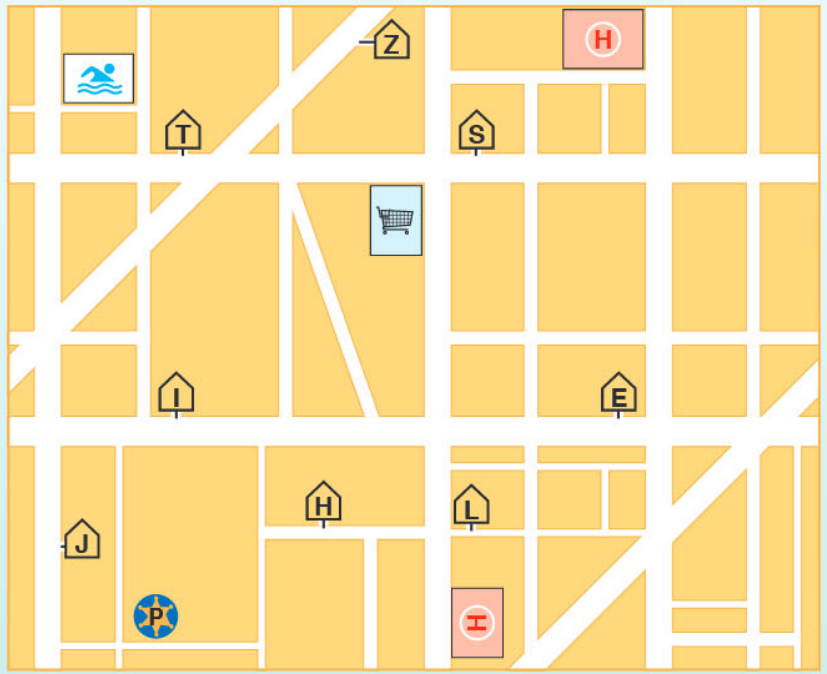


____

Card 19 Diagnostic Quizzes

Orange

Location



Scale
1 cm = 100 m

Record what you find on the map at the grid references below.
For example, at **C2** you will find the lake.

1	A1		5	D4	
2	B4		6	B5	
3	C1		7	E1	
4	D2		8	A3	

What grid references would describe the location of:

9 the golf course? ____ 10 the shopping centre? ____

Tom, Zena, Sam, Issac, Ellie, Jake, Hassan and Liam marked their homes on the map with their initials.

What direction is:

11 S from T? ____ 13 E from I? ____

12 T from I? ____ 14 L from S? ____

15 How many police stations are on the map above? ____

16 How many hospitals are on the map above? ____

Use the scale to calculate the distance from:

17 T to S. ____ 19 H to L. ____

18 I to E. ____

20 Draw the shortest path on the map from Zena's house to Jake's house.

Orange

Chance

1 Which colour is most likely to be drawn out of the bag?

2 Which colour is least likely to be drawn out of the bag?

3 Which two colours have the same likelihood of being drawn out of the bag?

Answer **true** or **false** for the following.

4 You can draw a purple ball from the bag.

5 You are less likely to draw a blue ball from the bag than a red ball.

6 You are less likely to draw a yellow ball from the bag than a green ball.

7 Red has the same chance of being drawn from the bag as yellow, blue and green combined.

Jason tossed a coin six times and recorded his results.

8 If he tossed the coin once more, is it more likely to land on a head than a tail?

Answer **true** or **false** for the following.

A dice has 6 faces numbered 1 to 6.

9 It is likely that you roll 6 first go.

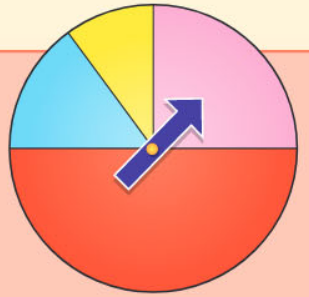
10 It is unlikely that you would roll a 3 first go.

11 You are more likely to roll a 3 than a 4.

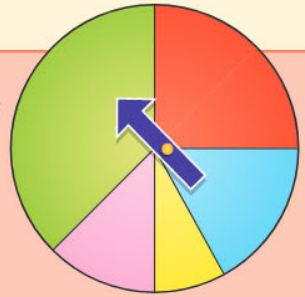
12 It is equally likely that you would roll an odd number as an even number.

13 It is certain that you would roll a number less than 7.

Spinner A



Spinner B



Which is the most likely colour to be spun on:

14 spinner A?

15 spinner B?

Which is the least likely colour to be spun on:

16 spinner A?

17 spinner B?

18 Are you more likely to spin blue on spinner A than spinner B?

19 Are you more likely to spin pink on spinner A than spinner B?

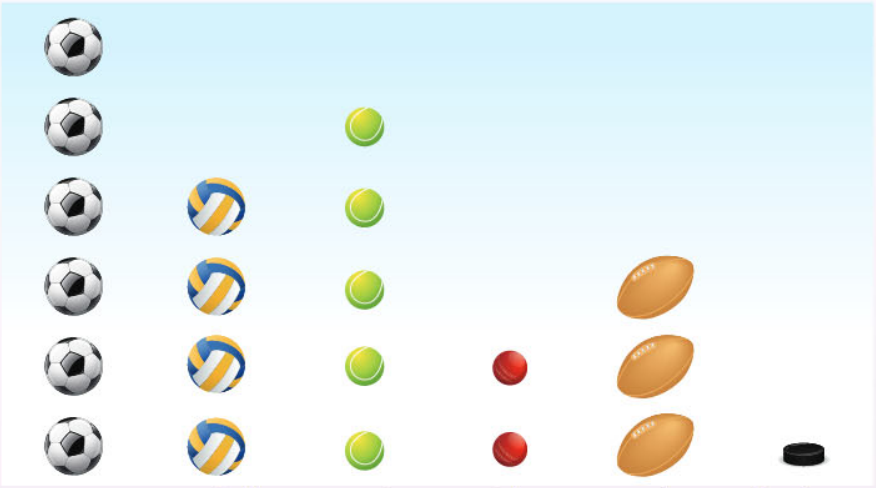
20 What is the second most likely colour to be spun on spinner A?

Orange

Data

The children in Year 4 completed a survey of their favourite sports.

Favourite Sports of Year 4



1 How many children liked hockey? ____

2 How many children liked netball? ____

3 How many children liked rugby? ____

4 How many children liked soccer? ____

5 How many more children liked soccer than netball? ____

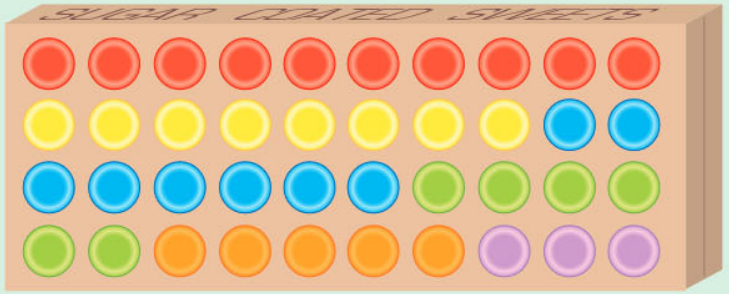
6 How many children were surveyed? ____

7 Which sport was the least popular? ____

8 Which sport was the most popular? ____

9 Do you think the survey results would be identical if you surveyed another Year 4 in another school? ____

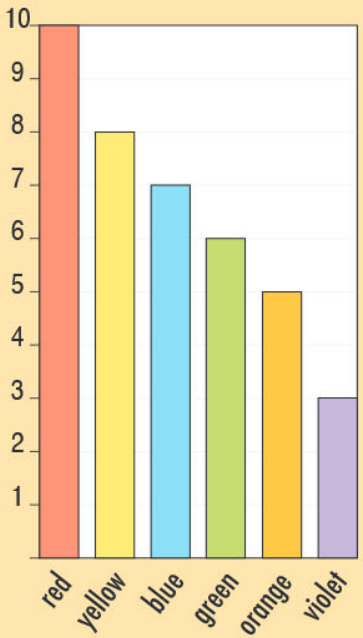
10 What is the most common colour in a box of sugar coated sweets below? ____



Class 3Z made a table of the different coloured sweets above.

11 Complete the table for orange sweets using tally marks.

Red	Yellow	Blue	Green	Orange	Violet
𝍸 𝍸	𝍸 |||	𝍸 |||	𝍸 |		|||



Class 3Z made a column graph of the coloured candy.

Which coloured sweet:

12 had a tally of 5? ____

13 was least common? ____

14 had a tally of 6? ____

15 had a tally of 10? ____

16 What colour is not represented correctly on the graph? ____

17 Which two colours had the same tally? ____