enrich-e-matics TEST

3rd EDITION

Time: 30 minutes

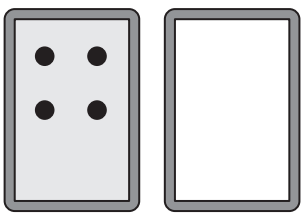
YEAR 1
TEST 1

Name: _____

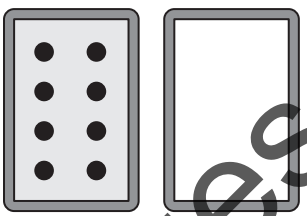
Class: _____

1 Fill in the blank cards so that the sum of the two cards makes a total of 10.

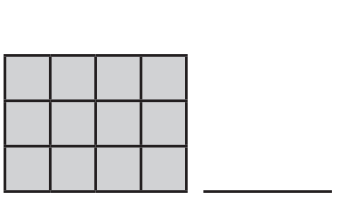
a



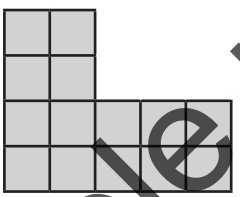
b



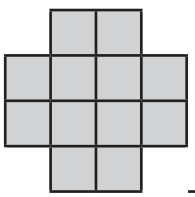
2 Write down how many small squares are in each shape.



_____



_____



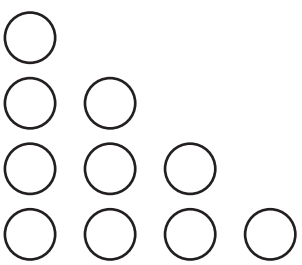
_____

3 Draw the two missing shapes in these patterns.

a ▼ ■ ○ ▼ ■ ___ ___ ■ ○ ▼ ■ ○

b ○ ◆ ◆ □ ○ ◆ ___ ___ ○ ◆ ◆ □ ○ ◆ ◆

4 Draw the 5th row of circles.



1st row

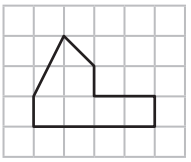
2nd row

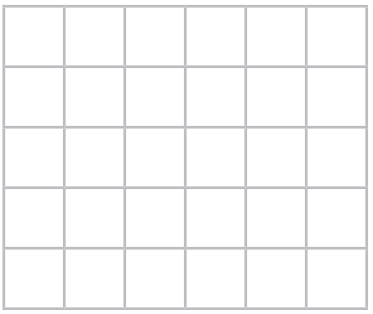
3rd row

4th row

_____ 5th row

5 Copy this figure very carefully onto the larger squared paper.





6 Find the next two numbers in the following pattern.

a 1, 3, 5, 7, _____ , _____

b 2, 5, 8, 11, _____ , _____

c 20, 30, 40, 50, _____ , _____

d 7, 17, 27, 37, _____ , _____

7 Write the missing numbers in these patterns.

a 10 11 ◯ ◯ 14 ◯

b 12 10 ◯ 6 ◯ 2

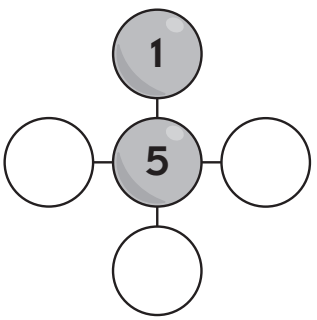
c ◯ ◯ ◯ 13 12 11

d 21 ◯ ◯ 15 ◯ 11 9

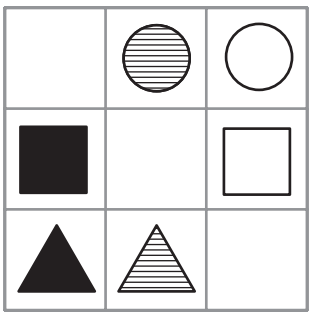
8 Write the missing number in the box.

3 + ☐ = 8

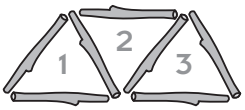
9 Place the numbers 2, 3 and 4 in the circles so that the sum of the numbers in each line is 10.



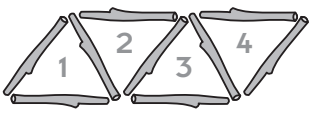
10 Draw the shapes that must be added in this grid to make the pattern complete.



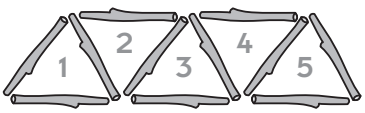
11



7 sticks are used to make these 3 triangles.

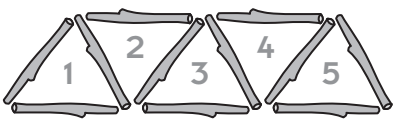


9 sticks are used to make these 4 triangles.



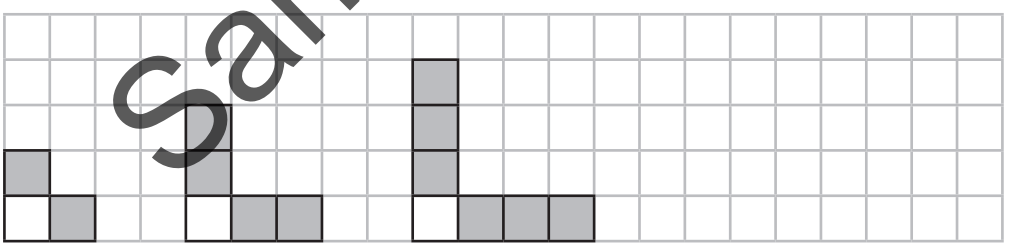
11 sticks are used to make these 5 triangles.

Add 2 more triangles to this diagram so that it will have 7 triangles.



How many sticks are used to make 7 triangles? _____

12 Square tiles are used to make each shape and the shapes form a pattern.



Draw the next shape in the pattern above.

13 If ◆ = 3 ice creams,
Then ◆◆ = 6 ice creams and ◆◆◆ = 9 ice creams.

Work out how many ice creams the diamonds below are worth.

a ◆◆◆◆ = _____ ice creams

b ◆◆◆◆◆ = _____ ice creams

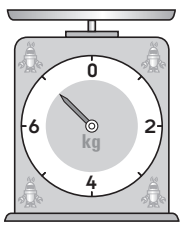
14 **a** If it is 8 a.m. now, what time will it be in 3 hours? _____

b If it is 8 a.m. now, what time was it 3 hours ago? _____

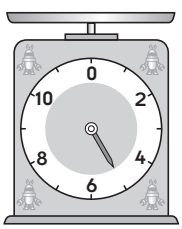
c Today is Tuesday. What day will it be in 8 days' time? _____

15 **a** How many 50-cent coins do I need to make $2? _____

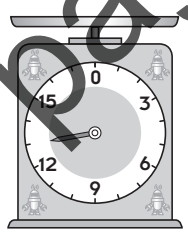
b If 2 stamps cost $1, what is the price of 4 stamps? _____

16 

This scale shows 7 kg.
What does the scale show in each of the following?

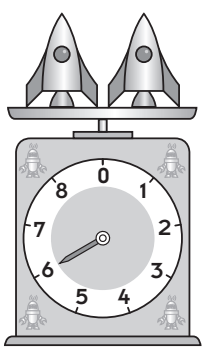
a 

_____ kg

b 

_____ kg

17 Find the mass of  using the scale shown.



_____ kg

18 7 and 4 have a difference of 3, since 7 – 4 = 3
10 and 7 have a difference of 3, since 10 – 7 = 3

Write down some other numbers that have a difference of 3.

a ◯ – ◯ = 3 **b** ◯ – ◯ = 3

enrich-e-matics 3rd EDITION TEST

Time: 30 minutes

YEAR 1 TEST 2

Name: _____

Class: _____

1 How many times does the letter **X** appear in this diagram?

_____

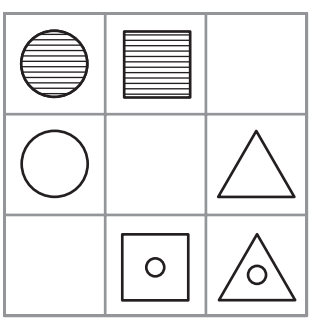
2 Continue this pattern of shapes for one more figure.

3 Draw the next three shapes in each pattern.

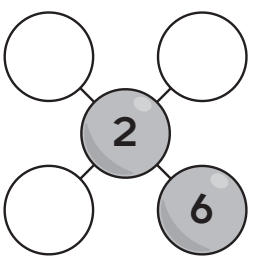
___ ___ ___

___ ___ ___

4 Draw the shapes that must be added to complete the pattern in this square.



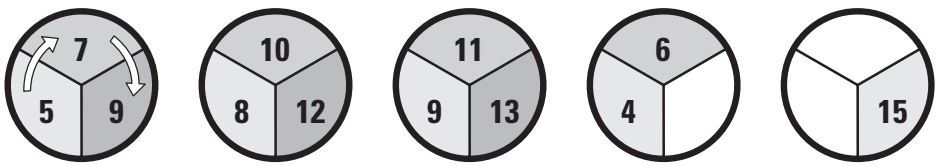
5 Place the numbers 3, 4 and 5 in the circles, so that the sum of the numbers in each line is 11.



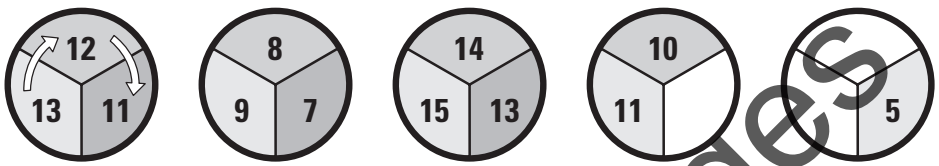
6 The numbers in each set of circles below follow a pattern.
The arrows in the first circle of each set show how the numbers should be read.

What numbers are missing from the last two circles in each set?

a



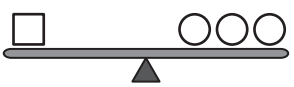
b

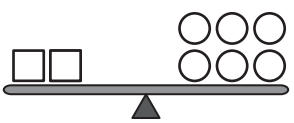


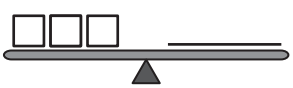
7 Write the missing number in each box.

a ☐ + 2 = 6

b ☐ – 3 = 4

8 If three circles balance one square 

and six circles balance two squares  ,

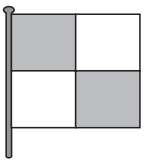
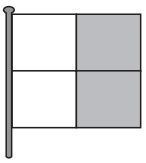
then how many ○s are needed to balance □□□? 

_____ circles

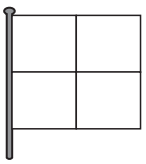
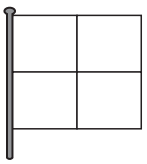
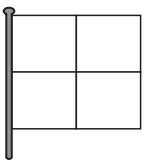
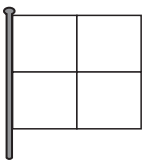
9 Place numbers in the squares so that the sum of the numbers in all directions adds to 15.

		8
9	5	1
2	7	

10 In these flags only two of the squares are coloured in.

Can you make four other *different* flags by colouring in only two squares on the flags below?

11 **a** Two sisters share $12 so that each girl gets the same amount.

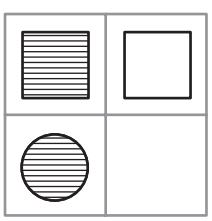
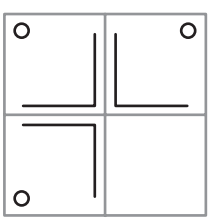
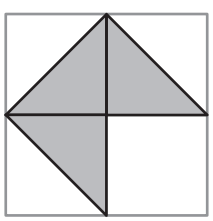
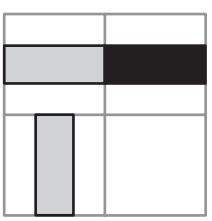
How much does each girl get? _____

b Three sisters share $12 so that each girl gets the same amount.

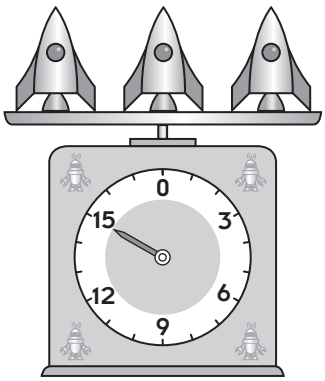
How much does each person get? _____

c If six children share $12, how much does each person get? _____

12 Look at each picture carefully and fill in the empty square to complete the pattern.

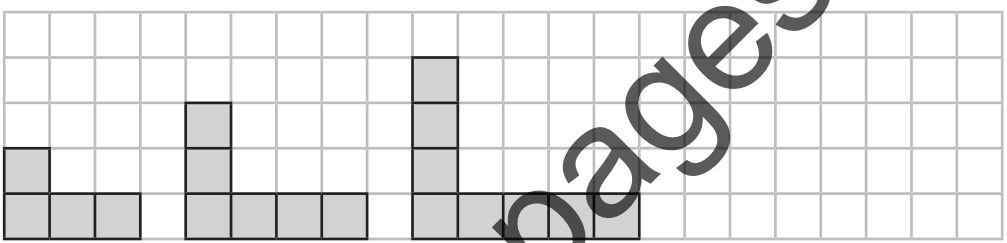





13 Find the mass of  using the scale.



_____ kg

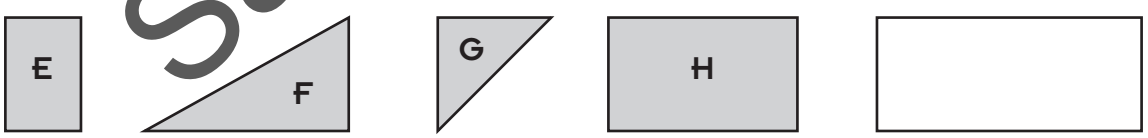
14 Melissa is stacking square tiles. Draw the next diagram in her pattern.



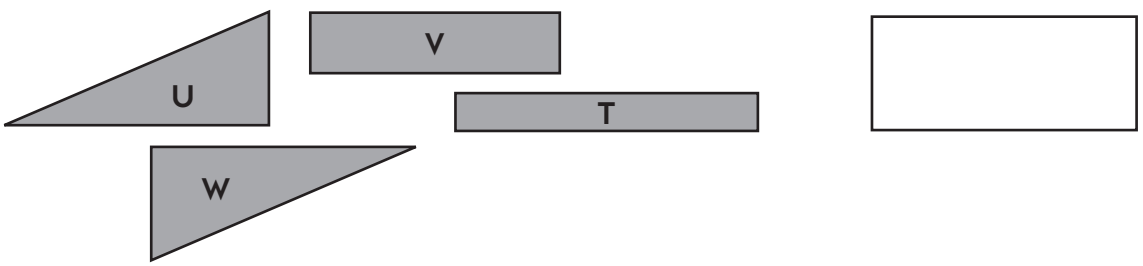
15 The two pieces on the right will fit together to make shape R.

Find which two pieces will fit together to make the shape on the right. Show how they will fit.

a



b



9

Chips
80c

Ice cream
40c

Apple
60c

a At this tuckshop how much do three ice creams cost? _____

b What did I buy at the tuckshop if I spent exactly $1.20?

_____ or _____

c What did I buy at the tuckshop if I spent exactly $2?

_____ or _____

10 Find how many sweets Amy brought to school.
It was less than 14. It was more than 8.

a The possibilities are _____

b She could divide them into two equal shares.

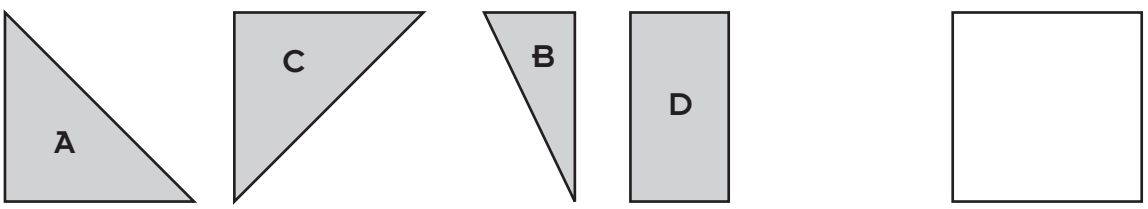
Now the possibilities are _____

c She could divide them into three equal shares, as well.

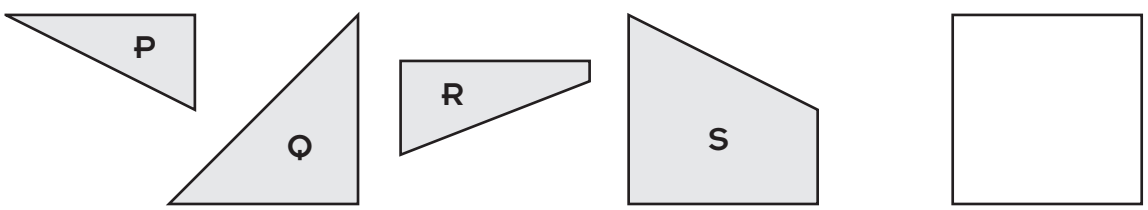
Now the possibility is _____

11 Find which two pieces will fit together to make the square on the right, and draw the diagram.

a



b



enrich-e-matics 3rd EDITION TEST

Time: 30 minutes

YEAR 2 TEST 4

Name: _____

Class: _____

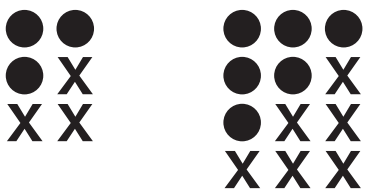
1 Write down the next two numbers in each pattern.

a 2, 8, 14, 20, _____, _____

b 32, 27, 22, 17, _____, _____

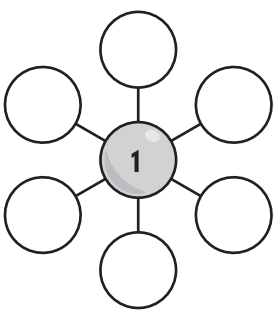
c 1, 2, 4, 7, 11, 16, _____, _____

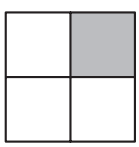
2 Continue this pattern for one more figure.



_____

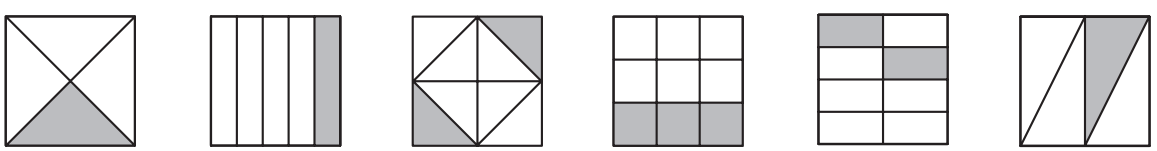
3 Place the digits 2, 3, 4, 5, 6 and 7 in the empty circles so that the sum of each line is 10.



4 

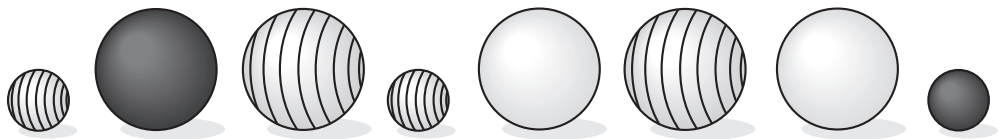
In this square one quarter or one part in four has been shaded.

Colour the bubbles next to the squares that have one quarter shaded.



A ◯ B ◯ C ◯ D ◯ E ◯ F ◯

5 Andrew had eight balls as shown.



Colour in the bubble next to the true statements.

A ◯ Half the balls are big. **B** ◯ Half the balls have stripes.

C ◯ One quarter of the balls are black.

6 Complete the following.

a
$$\begin{array}{r} 1\ 7 \\ +\ \square\ \square \\ \hline 3\ 8 \end{array}$$

b
$$\begin{array}{r} 2\ \square \\ +\ \square\ 4 \\ \hline 4\ 3 \end{array}$$

c
$$\begin{array}{r} 3\ 9 \\ -\ \square\ \square \\ \hline 1\ 7 \end{array}$$

d
$$\begin{array}{r} 4\ \square \\ -\ \square\ 6 \\ \hline 1\ 2 \end{array}$$

7 Numbers are written in columns in the pattern shown.

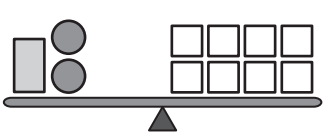
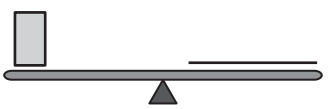
a Continue the pattern and complete this table.

b Name the letter of the column in which the number 25 would appear.

_____

A	B	C	D	E
1		2		3
	4		5	
6		7		8
	9		10	

8 Two balances are given.
Work out how many □s you need on the right side of the third balance.

If  and  , then  .

9 Each of these number patterns has a mistake in it.

Find the mistake, draw a neat line across it and write the correct answer above it.

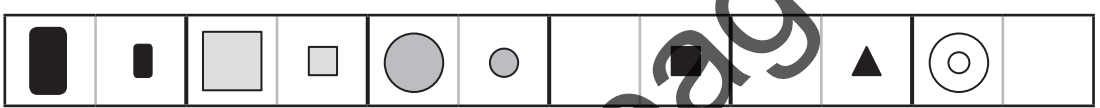
a 1, 4, 7, 11, 13, 16, 19

b 35, 31, 27, 23, 18, 15, 11

c 4, 8, 14, 16, 20, 24, 28

10 Try to discover the pattern in each of the sequences below then complete the empty squares.

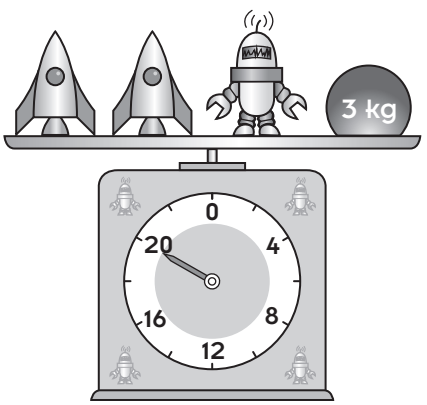
a



b

11 If the mass of  is 6 kg,

find the mass of  using this scale.



_____ kg

12 Find the pattern and complete the missing numbers.

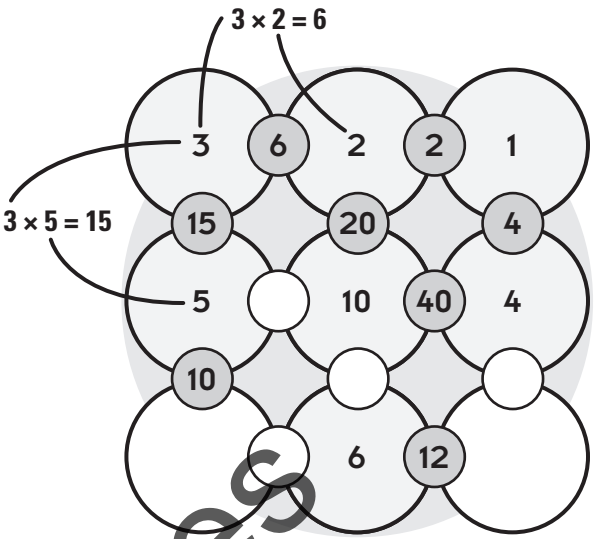
2 ⇩ 8	4 ⇩ 10	8 ⇩ 14	15 ⇩ 21	1 ⇩	⇩ 9

13 Faye was on a train for 4 hours. Her train trip finished at 3:30 p.m.

What time did her trip start? _____

14 When the numbers in the two big circles next to one another are *multiplied*, the answer is the number in the small circle drawn between them.

Check the rule carefully, and fill in the empty circles.



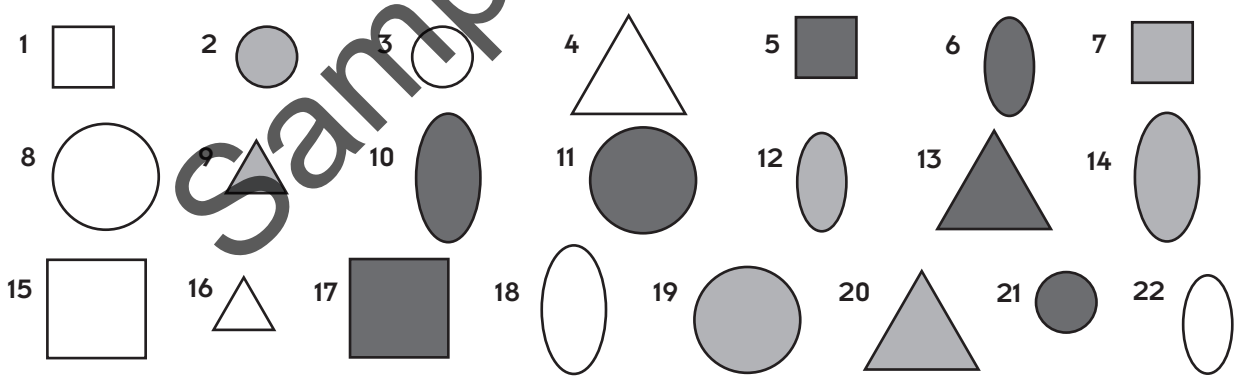
15

Ice cream prices	
Fruit bar	$ 2.80
Choctop	$ 2.70
Yogy bear	$ 2.50
Creamy-cone	$ 2.30

Alex spends exactly $5 on two ice creams.

Which two ice creams can he buy? _____ _____

16 This set of 22 figures can be grouped in many ways.



One way is to group all the white small shapes: 1, 3, 16, 22.

Another way is to group all oval shapes even though some are shaded, some are large and some are small: 6, 10, 12, 14, 18 and 22.

Complete other shapes that belong to each of these groups.

a 2, 3, 11, 21, _____, _____

b 2, 9, 14, 19, _____, _____, _____