AIM 2007

Year 5

Achievement Improvement Monitor

MATHEMATICS TEST

STUDENT DETAILS

TEST INSTRUCTIONS

1. **You must do your own work.**
2. **Do not speak to other students during the test.**
3. **Raise your hand if you need to speak to the teacher.**
4. **Follow all directions given to you by the teacher.**
5. **All questions must be answered using the pencil you have been given. If you need to change an answer, carefully erase it and write another answer.**
6. **You are NOT permitted to use a calculator of any type.**
7. **To confirm you have the correct booklet, print your name below.**

Print your name here:

YOU HAVE 45 MINUTES TO COMPLETE THIS TEST

Victoria
The Place To Be

P1 How many days are there in one week?
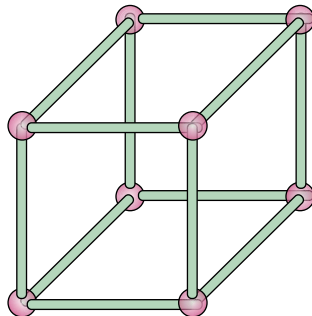
- ○ 2
- ○ 5
- ○ 7
- ○ 10

P2 $5 \times 3 =$ ☐☐

P3

How many of these shapes are circles? ☐

You have 45 minutes to complete this test.
You are NOT permitted to use a calculator of any type.

**1** Ali made this model using straws and plastic balls.

How many straws and how many plastic balls did Ali use to make the model?

- ○ 8 straws and 6 plastic balls
- ○ 8 straws and 8 plastic balls
- ○ 12 straws and 6 plastic balls
- ○ 12 straws and 8 plastic balls

Questions 2 and 3 refer to the following information.

The pictograph shows how many goals were scored by some players in a school soccer team in one season.

Goals scored
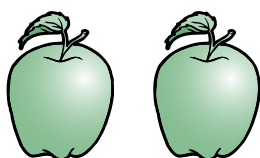
| Andrea | Bill | Con | Dani |

Key
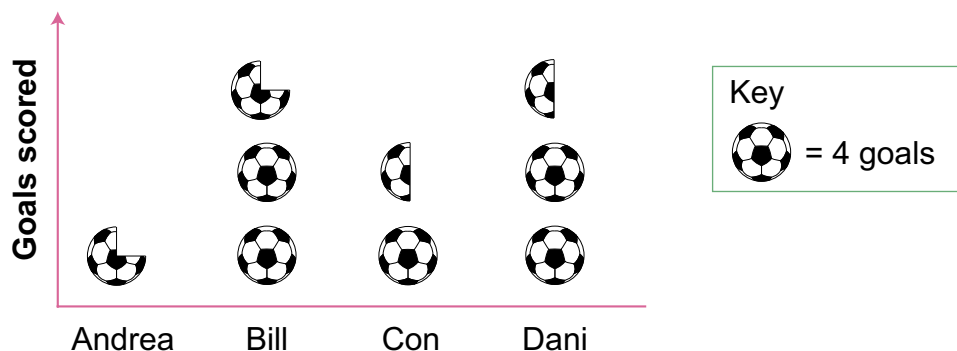
⚽ = 4 goals

2 Which player scored 11 goals?

Andrea   Bill   Con   Dani
○   ○   ○   ○

3 How many more goals did Dani score than Andrea?

3   4   6   7
○   ○   ○   ○

4 Jira had two apples. She cut each apple into quarters.
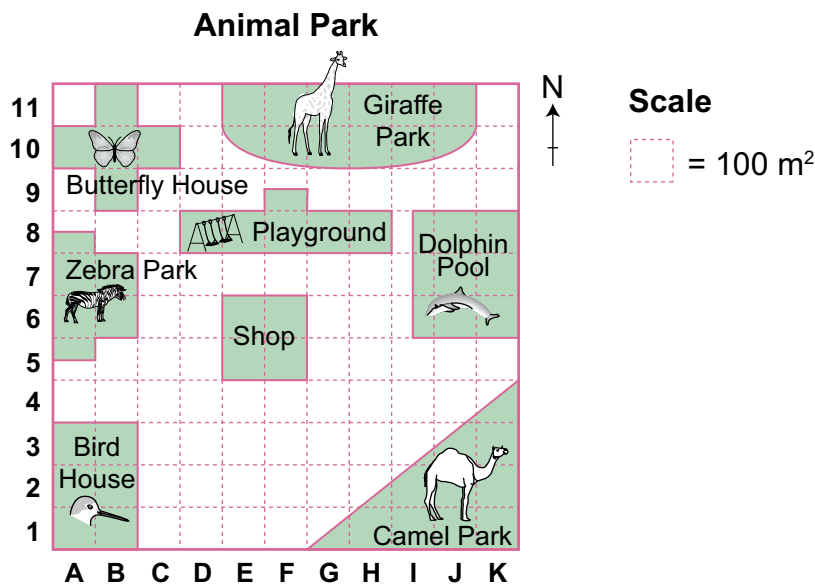
How many quarters did she have in total?

2   4   8   16
○   ○   ○   ○

5 Which clock shows that the time is a quarter to nine?

9:45   8:15   9:15   8:45
○   ○   ○   ○

Questions 6 to 8 refer to the following information.

Animal Park

Scale

☐ = 100 m²

6 Which of the following is a possible grid reference for the Camel Park?

E1   H4   J5   K3
○   ○   ○   ○

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7 Which place has the same area as the Butterfly House?

Zebra Park   Playground   Bird House   Shop
○   ○   ○   ○

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8 Which place is south-west of the shop?

Dolphin Pool   Bird House   Camel Park   Butterfly House
○   ○   ○   ○

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9 Helen is saving to buy a new washing machine that costs $430.
She has already saved $80.

How much more money does Helen need to save to buy the washing machine?

$320 $350 $422 $510
○   ○   ○   ○

10   What fraction of the shape is shaded?
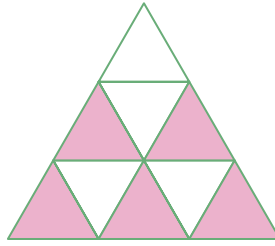
$$\frac{1}{4}$$
○

$$\frac{1}{5}$$
○

$$\frac{4}{5}$$
○

$$\frac{5}{9}$$
○

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11   In January this year Daniel was 9 years old and Paula was 11 years old.

Which one of the following **cannot** be true in January next year?

○   Paula will be 12 years old.
○   Paula will be younger than Daniel.
○   Daniel will be two years younger than Paula.
○   Daniel will be one year older than he is now.

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12   Ben got on the bus at 3:46 pm and got off it at 4:12 pm.

He was on the bus for

12 minutes   14 minutes   26 minutes   58 minutes
○   ○   ○   ○

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13   Adele buys a box of 6 pens for a total cost of $5.40.

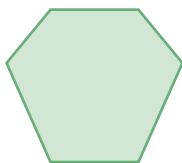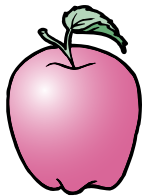What is the cost of each pen?

$0.60 $0.90 $1.00 $1.40
○   ○   ○   ○

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14   This shape is

○   an octagon.
○   a hexagon.
○   a pentagon.
○   a parallelogram.

15

Apples: 40c each

Juice: 65c per box

Mark buys 4 apples and 5 boxes of juice.

What is the total cost of these items?

$4.65	$4.80	$4.85	$5.05
○	○	○	○

16

Lucas needs to buy 70 candles for his grandfather's cake.
The candles are sold in packets of 12.

What is the least number of packets Lucas needs to buy?

17

$7 \times 8 =$

18

$345 - 160 =$

185	225	460	505
○	○	○	○

19

Josh has 6 red marbles and 6 blue marbles.
He puts 4 of the 12 marbles into a bag.
When a marble is taken from the bag, it is more likely to be red than blue.

The bag could contain

○ 1 blue and 3 red marbles.
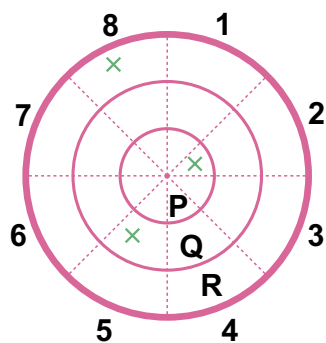○ 2 blue and 2 red marbles.
○ 3 blue and 1 red marble.
○ 4 blue and 0 red marbles.

20 Andy drew three crosses on a circular board.

One of the crosses is in region **P2**.

In which regions are the other two crosses drawn?

- ○ **P8** and **P5**
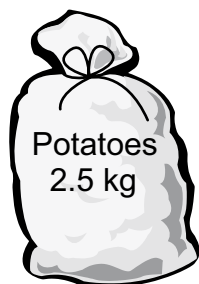- ○ **Q2** and **R3**
- ○ **R2** and **Q5**
- ○ **R8** and **Q5**

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21 $14.63 + 3.20 =$

- ○ 14.95
- ○ 17.65
- ○ 17.83
- ○ 46.63

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22 A bag of potatoes has a mass of 2.5 kilograms.

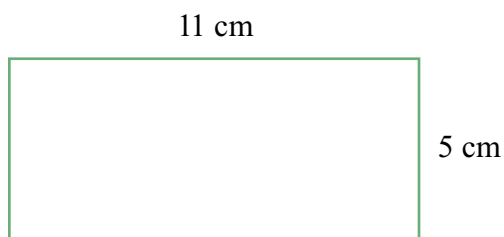What is the mass, in grams, of the bag of potatoes?

Potatoes
2.5 kg

- ○ 25 g
- ○ 250 g
- ○ 2500 g
- ○ 25 000 g
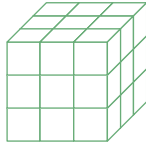
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23 What is the perimeter of the rectangle?

11 cm

5 cm

☐ ☐ cm

24 Joel started with a large cube made up of small cubes.

After he removed some small cubes, he was left with this shape.

How many small cubes did he remove?

6	14	15	18
○	○	○	○

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25 Nicola has 15 stickers. Rita has 25 stickers.

Which of the following would result in both girls having the same number of stickers?

○ Nicola gives Rita 5 of her stickers.

○ Rita gives Nicola 5 of her stickers.

○ Nicola gives Rita 10 of her stickers.
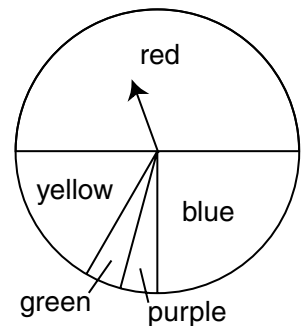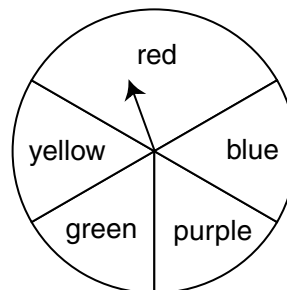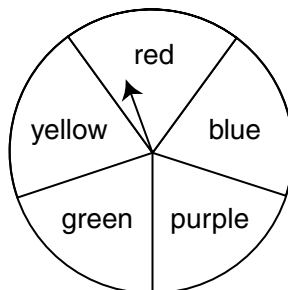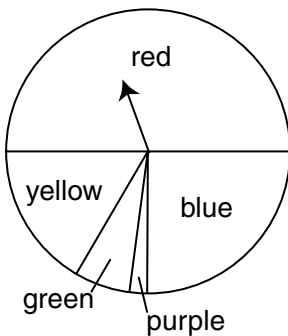
○ Rita gives Nicola 10 of her stickers.

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26 Maria has made a spinner using five colours.
When she spins the arrow on her spinner:

• it is twice as likely to land on red as it is on blue

• it is three times as likely to land on red as it is on yellow

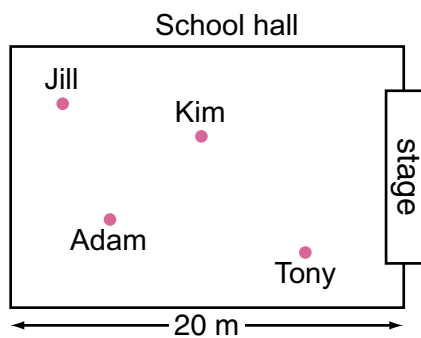• it is equally as likely to land on purple as it is on green.

Which spinner is Maria's?

27

Four students are in a school hall.

The length of the hall is 20 metres.

School hall

Jill

Kim

stage

Adam

Tony

— 20 m —

Who is approximately 15 m away from the stage?

○ Jill

○ Kim

○ Tony

○ Adam

28

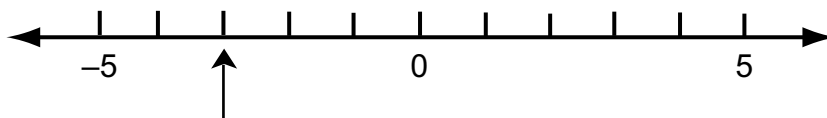Given that

$$24 = 288 \div 12$$

which one of the following is also true?

○ $288 = 24 \times 12$

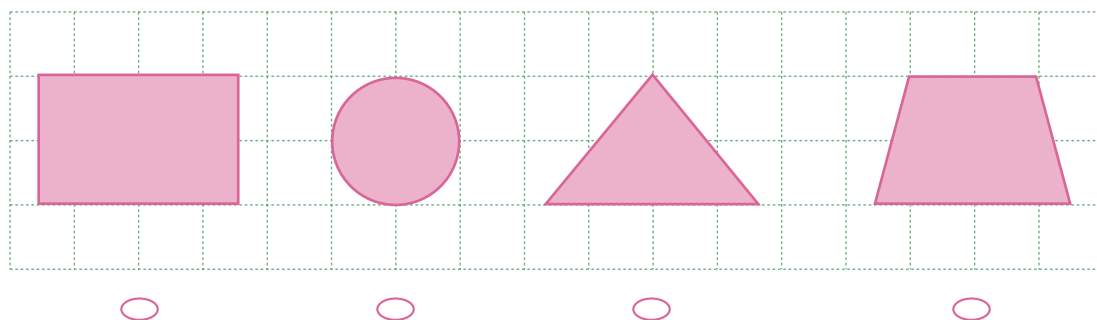○ $288 = 24 \div 12$

○ $288 \times 12 = 24$

○ $288 = 12 \div 24$

29

On the number line the arrow shows the position of

3	−3	7	−7
○	○	○	○

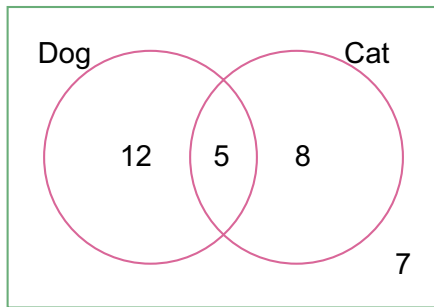**30**

Which one of these shapes has **exactly two** lines of symmetry?

○   ○   ○   ○

31 The Venn diagram shows how many students in a group have a dog, a cat, both or neither as a pet.

Dog   Cat

12   5   8

7

How many students have a cat as a pet?

- ○ 5
- ○ 8
- ○ 13
- ○ 20

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32 30.1×0.97 is closest to

- ○ 0.003
- ○ 3
- ○ 30
- ○ 3000

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33 $4.0 - 1.4 =$

3.6   3.4   2.6   2.4
○   ○   ○   ○

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34 Simone starts with a number.

She multiplies it by 6, then divides it by 8. The answer is 9.

What number did she start with?

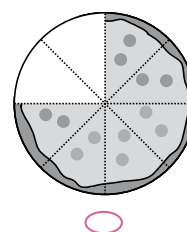6   8   9   12
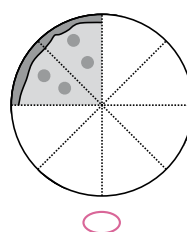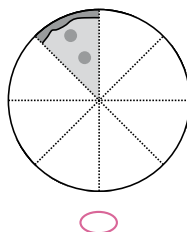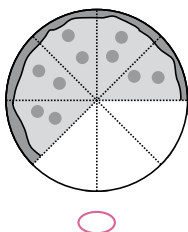○   ○   ○   ○

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35 Fiona and Dave shared a pizza.

Fiona ate $\frac{1}{8}$ of the pizza and Dave ate $\frac{1}{4}$ of the pizza.

Which picture shows how much pizza was left over?

○   ○   ○   ○

36 This table shows the results for four students who played in a handball challenge.

Name	Wins	Losses
Sarah	5	3
Jillian	3	6
Caitlin	4	4
Alannah	8	4

Who won half the games she played?

○ Sarah
○ Jillian
○ Caitlin
○ Alannah

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37 $603 \div 9 =$ ☐☐

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38 25% of 140 = ☐☐

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39 This graph shows the number of laps swum by five swimmers at training.

Laps swum at swimming training
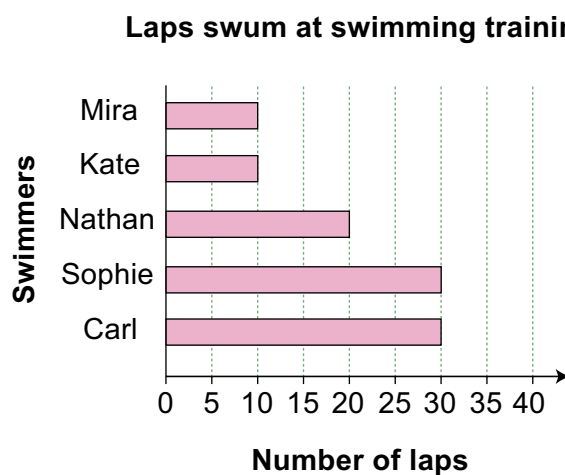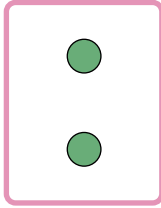

What was the average (mean) number of laps swum by the five swimmers?

☐☐

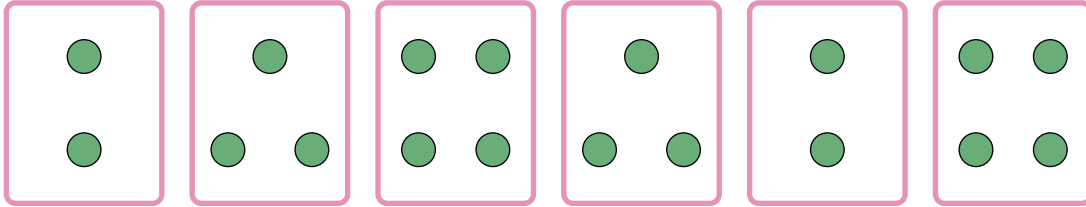**40** Cathy has this card.

Sam is holding these cards.

Without looking, Cathy picks one of Sam's cards.

What is the probability that Cathy picks a card that matches her card?

$\frac{1}{6}$ 　　　 $\frac{1}{3}$ 　　　 $\frac{1}{12}$ 　　　 $\frac{1}{36}$

○　　　　　　○　　　　　　○　　　　　　○

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41 A car travels at an average speed of 75 km per hour.
How long will it take to travel 50 km?

○　40 minutes
○　50 minutes
○　75 minutes
○　90 minutes