

2005 AUSTRALASIAN SCHOOLS

AUSTRALIA

Y6

MATHEMATICS

ASSESSMENT

PACIFIC

Y6

40 QUESTIONS

TIME ALLOWED: 1 HOUR

STUDENT'S NAME:

DO NOT OPEN THIS BOOKLET UNTIL INSTRUCTED.

NEW ZEALAND

Y7

Read the instructions on the **ANSWER SHEET**.

Fill in your **NAME, SCHOOL YEAR** and **OTHER INFORMATION**.

QUESTIONS 1–35: MULTIPLE CHOICE

Use the information provided to choose the **BEST** answer from the four possible options.

On your **ANSWER SHEET** fill in the oval that matches your answer.

Mark only **ONE** answer for each question.

QUESTIONS F1–F5: FREE RESPONSE

On your **ANSWER SHEET** write your answer in the boxes provided.

You may use a ruler and spare paper.

You are **NOT** allowed to use a calculator.

Use a 2B or B pencil.

Do **NOT** use a pen.

Rub out any mistakes completely.

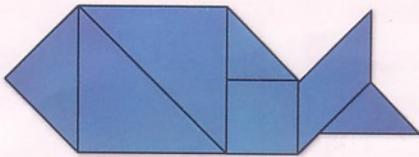
Your score will be the number of correct answers.

THE UNIVERSITY OF
NEW SOUTH WALES

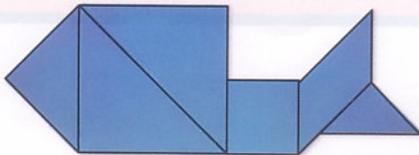


EDUCATIONAL ASSESSMENT
AUSTRALIA

1. Alex made this shape.



He then removed one of the pieces.



Which piece did he remove?



(A)



(B)



(C)



(D)

2. What is 50% as a fraction?

(A) $\frac{1}{2}$

(B) $\frac{1}{5}$

(C) $\frac{1}{50}$

(D) $\frac{1}{100}$

3. Which of these numbers is a multiple of 6?



(A)



(B)



(C)



(D)

4. Which of these has a mass of about 1 kg?



carton of milk
(A)



pen
(B)

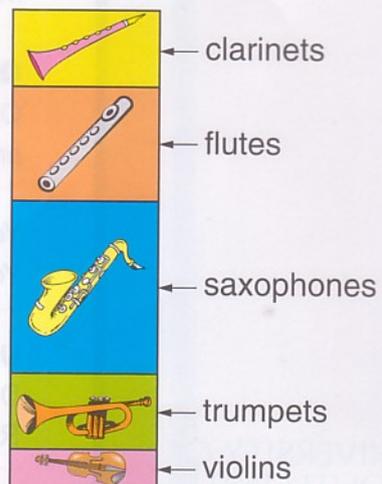


chair
(C)



disc
(D)

5. There are five types of instruments in a school band. This graph shows how many instruments there are of each type.

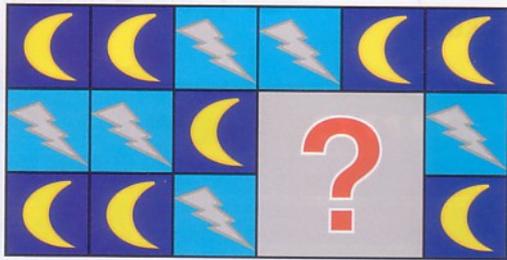


Total = 25

For which two types are there the same number of instruments?

- (A) saxophones and violins
- (B) trumpets and clarinets
- (C) flutes and trumpets
- (D) clarinets and flutes

6. A part of this pattern is missing.



Which picture shows the missing part?



(A)



(B)

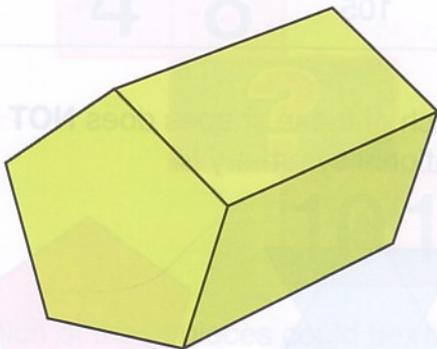


(C)

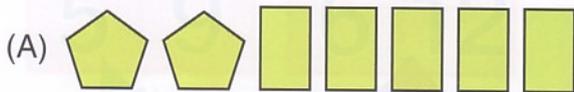


(D)

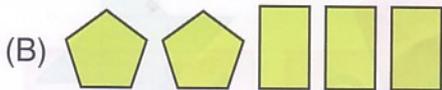
7. Here is a pentagonal prism.



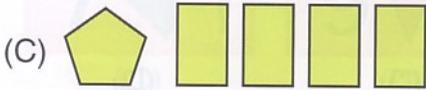
Which set of shapes can make a complete pentagonal prism?



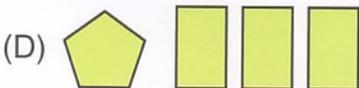
(A)



(B)



(C)



(D)

8. $421 \times 3 = ?$

(A) 1363

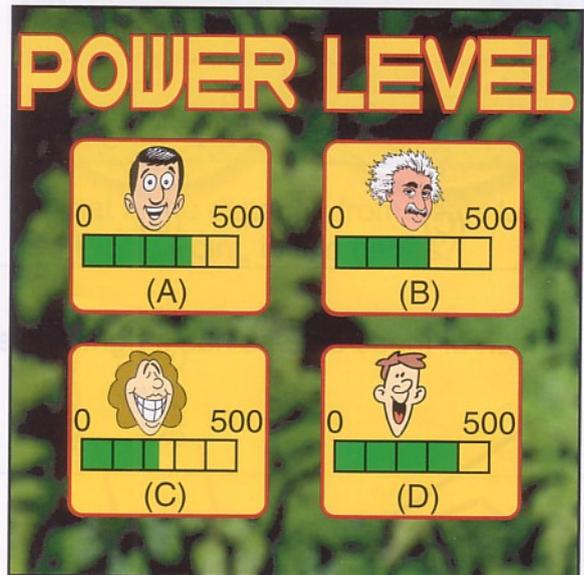
(B) 1263

(C) 754

(D) 424

9. This screen shows the power level of four players in a computer game.

Which player has a power level of 350?



10. David has a cup and a bucket.



About how many cups of water will fill the bucket?

(A) 5

(B) 20

(C) 80

(D) 150

11. Which clock shows 4:45?



(A)



(B)

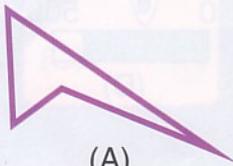


(C)



(D)

12. Which of these shapes has a right angle?



(A)



(B)



(C)



(D)

13. $851 - 573 = \square$

- (A) 278 (B) 322 (C) 388 (D) 498

14. Eight apples fit into a small box. Twice as many fit into a large box.

Reena has 3 of the small boxes and 2 of the large boxes.

What is the total number of apples that can fit into Reena's boxes?

- (A) 64 (B) 56
(C) 40 (D) 28

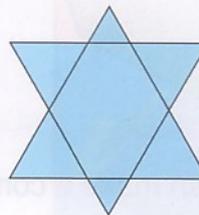
15. The scoreboard shows the total number of runs part of the way through a game of cricket.

Name	Runs
Belinda	18
Phil	?
Jamie	15
Emily	9
Extras	0
Total Runs	63

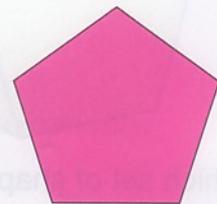
How many runs did Phil score?

- (A) 21
(B) 41
(C) 42
(D) 105

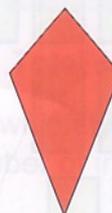
16. Which of these shapes does **NOT** have rotational symmetry?



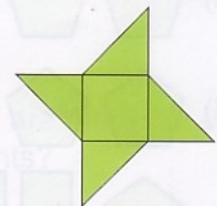
(A)



(B)



(C)



(D)

17. Kirra has 7 red jelly frogs and 3 green jelly frogs in a bag.

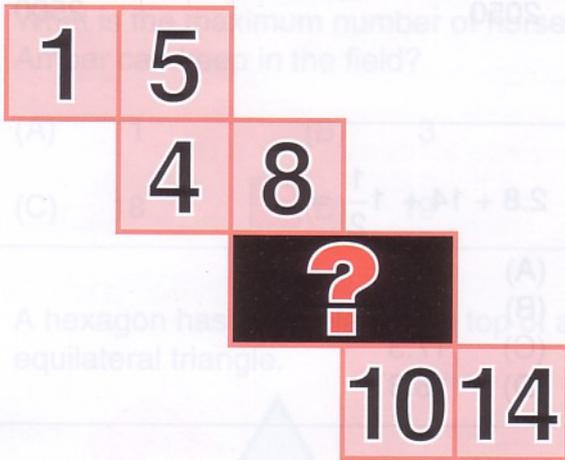


She takes 1 frog from the bag without looking.

What is the chance that the frog is green?

- (A) 1 in 3
- (B) 3 in 7
- (C) 1 in 10
- (D) 3 in 10

18. Here is a number pattern.



Which of these pieces could be missing from this pattern?



(A)



(B)

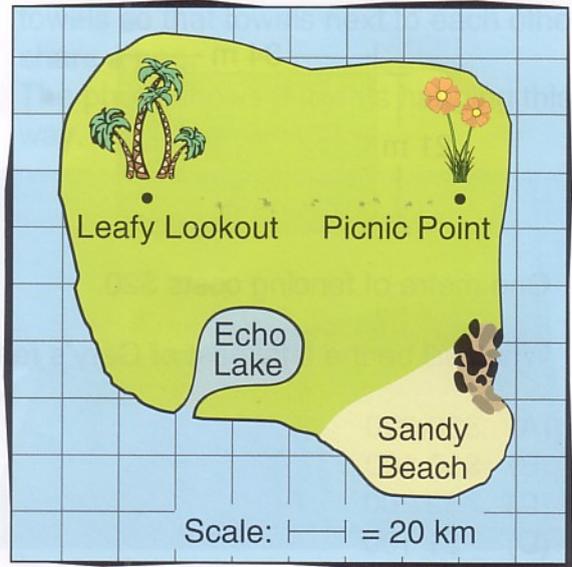


(C)



(D)

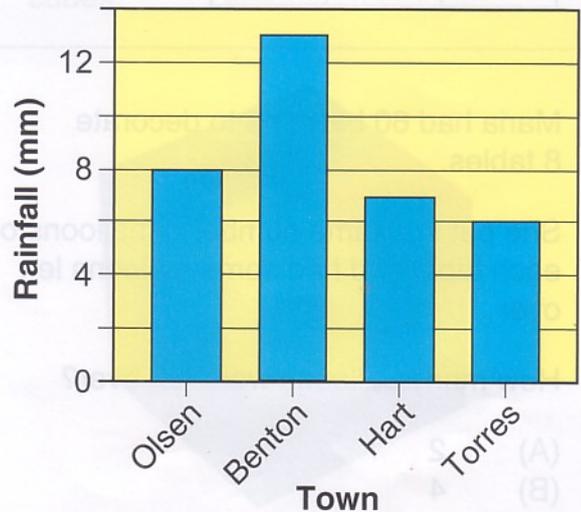
19. Here is a map of Holiday Island.



What is the distance from Leafy Lookout to Picnic Point, in kilometres?

- (A) 75
- (B) 100
- (C) 110
- (D) 125

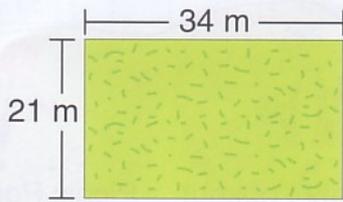
20. This graph shows the amount of rainfall, to the nearest millimetre (mm), in four towns on a particular day.



What is the difference, in millimetres, between the highest and lowest amounts of rainfall shown on this graph?

- (A) 6
- (B) 7
- (C) 8
- (D) 9

21. Gary wants to fence all the sides of his rectangular garden.



One metre of fencing costs \$20.

What will be the total cost of Gary's fence?

- (A) \$20 200
- (B) \$10 100
- (C) \$2 200
- (D) \$1 100

22. $10 \blacksquare 8 \blacklozenge 4 = 20$

Which operations make this number sentence correct?

	\blacksquare	\blacklozenge
(A)	+	+
(B)	+	\times
(C)	\div	\times
(D)	\times	\div

23. Maria had 60 balloons to decorate 8 tables.

She put the same number of balloons on each table and had some balloons left over.

How many balloons were left over?

- (A) 2
- (B) 4
- (C) 6
- (D) 8

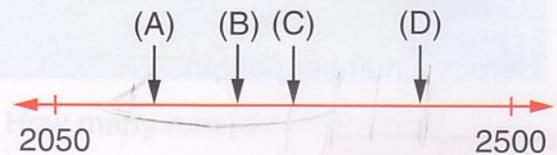
24. Here is a photo of part of a measuring tape.



To which measurement, in centimetres, is the arrow pointing?

- (A) 2.5
- (B) 100.25
- (C) 102.5
- (D) 125

25. Which arrow points to the position of 2230 on this number line?



26. $2.8 + 14 + 1\frac{1}{2} = \blacksquare$

- (A) 4.7
- (B) 5.7
- (C) 17.3
- (D) 18.3

27. Mr Abela has between 20 and 40 students in his class.

When he divides his class into groups of 4, there are 3 students left over.

When he divides his class into groups of 5, there are 2 students left over.

If he divides his class into groups of 6, how many students will be left over?

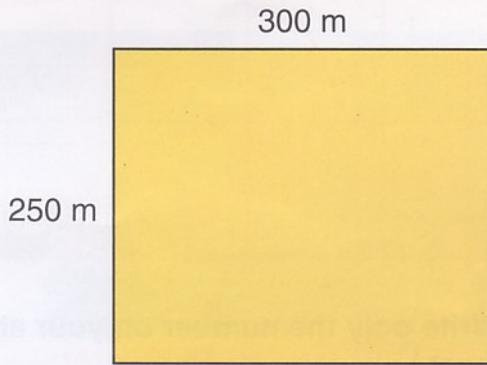
- (A) 5
- (B) 3
- (C) 2
- (D) 1

28. $40\,571 \div 8 = ?$

- (A) 20 146 remainder 7
- (B) 20 071 remainder 7
- (C) 5 071 remainder 3
- (D) 571 remainder 3

29. Amber's horses need a minimum field area of 4000 square metres per horse.

Amber has a rectangular field.

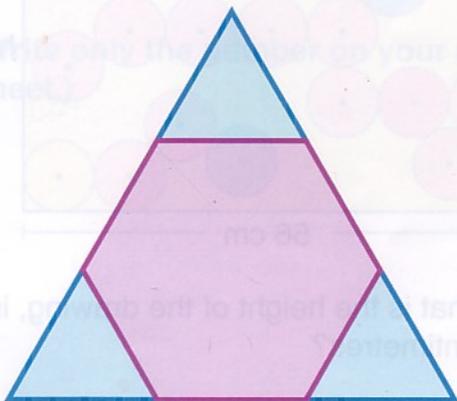


NOT TO SCALE

What is the maximum number of horses Amber can keep in the field?

- (A) 1
- (B) 3
- (C) 18
- (D) 19

30. A hexagon has been placed on top of an equilateral triangle.



What fraction of the area of the triangle is covered by the hexagon?

- (A) $\frac{1}{3}$
- (B) $\frac{1}{2}$
- (C) $\frac{3}{4}$
- (D) $\frac{2}{3}$

31. Robert is hanging towels on a line. He uses 3 pegs per towel but overlaps the towels so that towels next to each other share a peg. The photo shows 3 towels hanging this way.

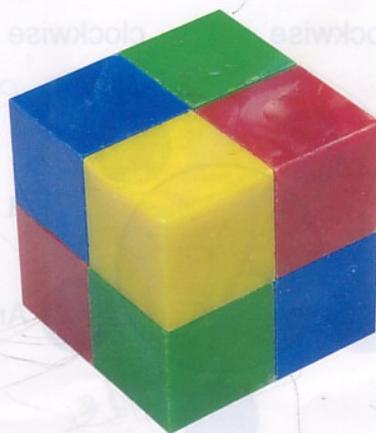


Robert wants to work out how many pegs he would need to hang any number of towels this way.

Which of these rules could he use?

- (A) $(2 \times \text{number of towels}) + 1$
- (B) $(2 \times \text{number of towels}) + 2$
- (C) $(3 \times \text{number of towels}) - 1$
- (D) $(3 \times \text{number of towels})$

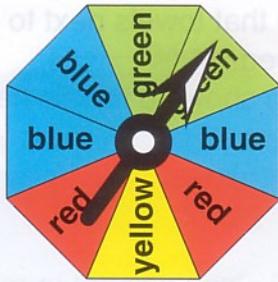
32. Nina made this cube using small plastic cubes.



What is the **least** number of small plastic cubes she will need to add to make a larger cube?

- (A) 8
- (B) 19
- (C) 27
- (D) 56

33. Here is a spinner.



Harry is going to spin this spinner 80 times. How many times should he expect it to land on yellow?

- (A) 30 (B) 20 (C) 10 (D) 8

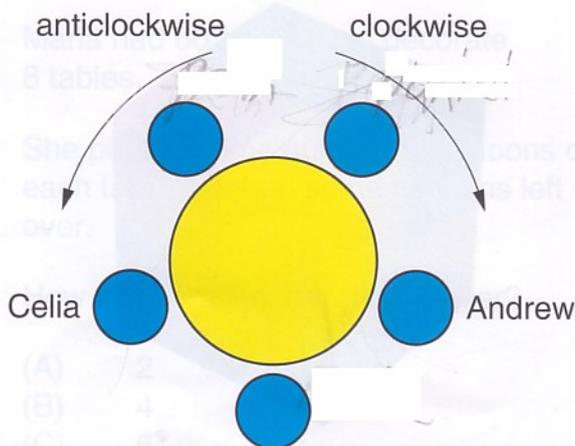
34. Jade bought a bamboo plant that grew 0.5 millimetres every minute.

When she bought the plant it was 1 metre tall.

How many **metres** tall would the plant be exactly 5 days later?

- (A) 1.06 (B) 1.36
(C) 3.6 (D) 4.6

35. Andrew, Beth, Celia, Daniel and Elle are sitting at a round table. Celia is two seats clockwise from Andrew, as shown.



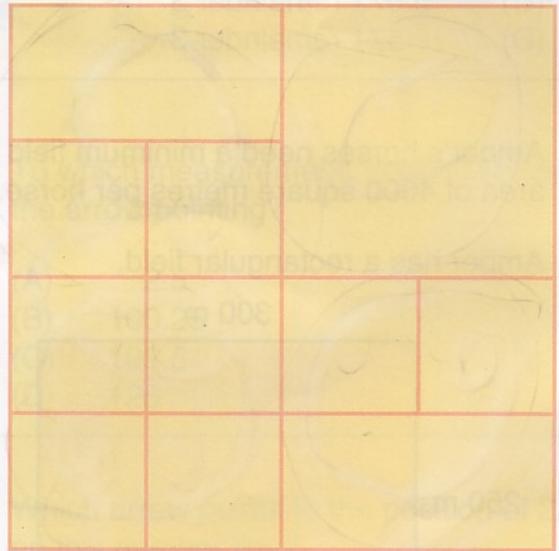
Beth is two seats anticlockwise from Elle.

Which two people could be one seat anticlockwise from Daniel?

- (A) Celia, Elle (B) Andrew, Beth
(C) Andrew, Elle (D) Beth, Celia

QUESTIONS F1 TO F5 ARE FREE RESPONSE.

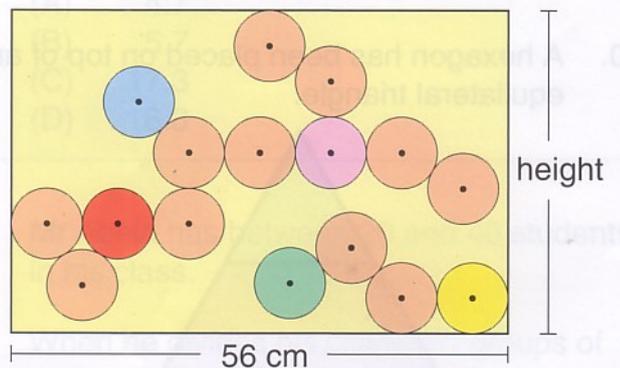
F1. How many squares, of any size, are in this shape?



(Write only the number on your answer sheet.)

F2. John has made a drawing of some circles inside a rectangle. The centre of each circle is marked with a dot.

The length of the drawing is 56 cm.



What is the height of the drawing, in centimetres?

(Write only the number on your answer sheet.)

F3. The number 2374 is made up of four different digits.

How many whole numbers between 2000 and 2100 are made up of four **different** digits?

(Write only the number on your answer sheet.)

F4. Michelle and Sam drive trucks at a mine.



Michelle's truck can transport 50% more dirt than Sam's truck in the same amount of time.

Together they take 10 hours to fill a container.

Working at this rate, how many hours would it take Sam to fill the container by himself?

(Write only the number on your answer sheet.)

F5. The students in Mrs Razak's class are having a special lunch day.

Here are the total student orders.

pies	24
juices	16
fruit salads	?

Every student ordered one pie.

Ten students ordered a pie, a juice and a fruit salad.

Three students ordered **only** a pie.

How many students ordered a fruit salad?

(Write only the number on your answer sheet.)

END OF PAPER

ACKNOWLEDGEMENT

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SOURCES

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