

33, 34, 39, 40

# AUSTRALASIAN SCHOOLS

# MATHEMATICS

## ASSESSMENT 2003

Year

5

AUSTRALIA

40 QUESTIONS

TIME ALLOWED: 45 MINUTES

STUDENT'S NAME:

DO NOT OPEN THIS BOOKLET UNTIL INSTRUCTED.

Read the instructions on the **ANSWER SHEET**  
and fill in your **NAME, SCHOOL YEAR, GENDER**  
and the **LANGUAGE YOU FIRST SPOKE**.

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

On your **ANSWER SHEET** blacken the oval  
that matches the answer you choose.  
Mark only **ONE** answer for each question.

Your score will be the number of correct answers.  
Marks are **NOT** deducted for incorrect answers.

Use a 2B or B pencil.  
Do **NOT** use a biro or pen.  
Rub out any mistakes completely.  
You may use a ruler and spare paper.  
Calculators are **NOT** permitted.

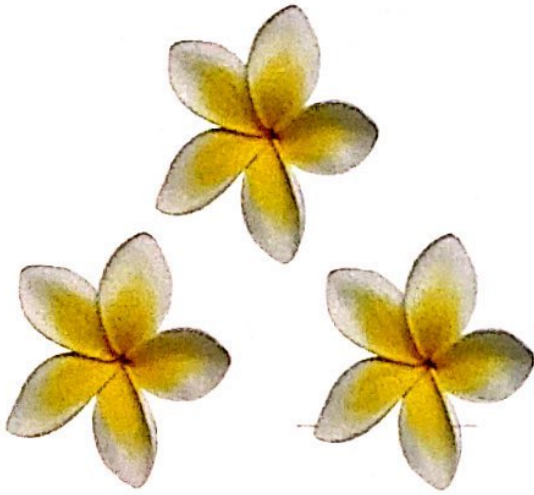
THE UNIVERSITY OF  
NEW SOUTH WALES



EDUCATIONAL  
TESTING CENTRE



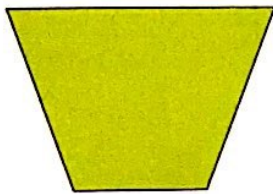
1.



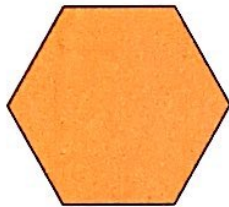
How many petals do these flowers have altogether?

- (A) 5
- (B) 8
- (C) 14
- (D) 15

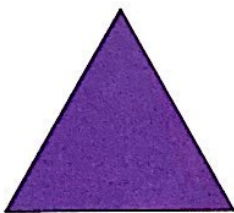
2. Which shape does **not** have all equal sides?



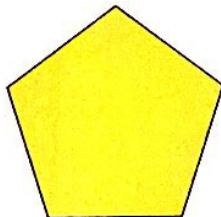
(A)



(B)



(C)



(D)

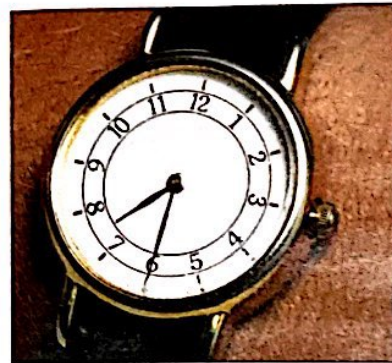
3.



What is the cost of these 12 apples?

- (A) \$3
- (B) \$4
- (C) \$12
- (D) \$36

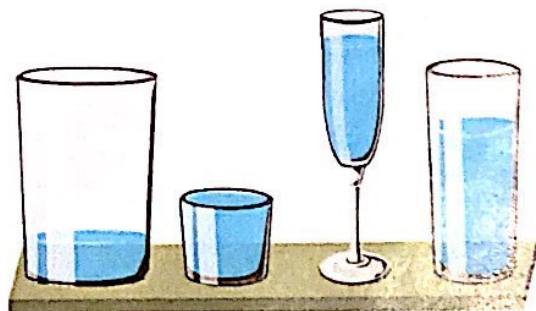
4.



What is the time on this watch?

- (A) half past eight
- (B) half past seven
- (C) eight past six
- (D) seven past six

5. Which glass is holding the most water?



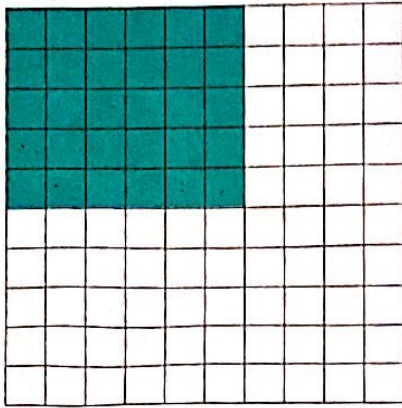
(A)

(B)

(C)

(D)

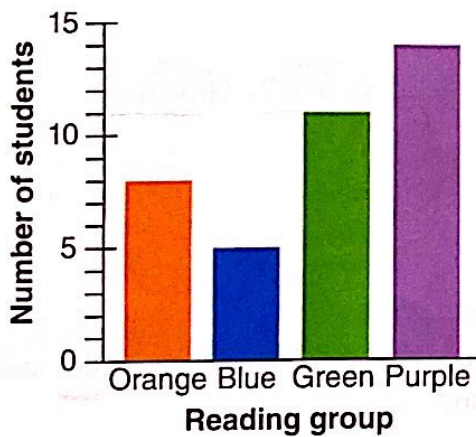
6. This grid has 100 small squares.



What fraction of the grid is shaded?

- (A)  $\frac{20}{100}$   
 (B)  $\frac{25}{100}$   
 (C)  $\frac{30}{100}$   
 (D)  $\frac{36}{100}$

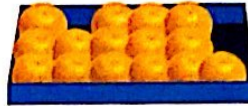
7. This graph shows the number of students in four reading groups.



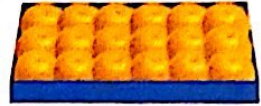
How many students are there in the **second largest** reading group?

- (A) 5  
 (B) 10  
 (C) 11  
 (D) 14

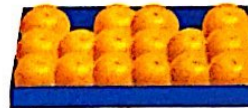
8. Which box has an odd number of oranges?



(A)



(B)

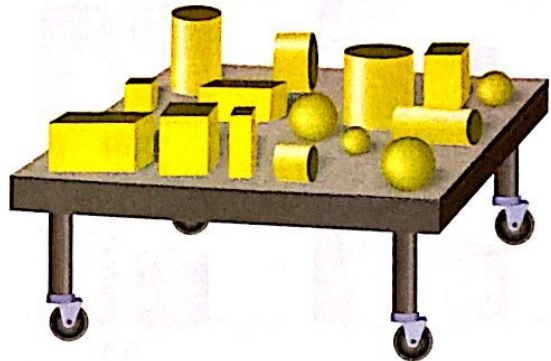


(C)



(D)

- 9.



How many of the solids on the table are cylinders?

- (A) 2  
 (B) 3  
 (C) 5  
 (D) 9

10. Here is a number pattern.

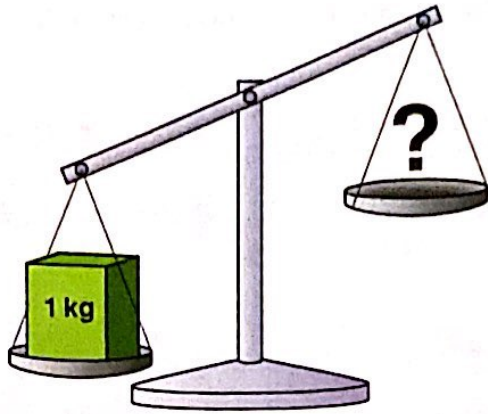
255, 365, 475, 585, ?, ...

Which number is next in this pattern?

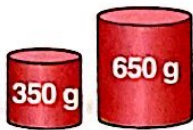
- (A) 695  
 (B) 685  
 (C) 605  
 (D) 595



11.



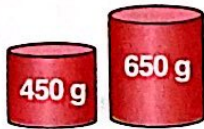
Which of these will make this scale balance?



(A)



(B)



(C)



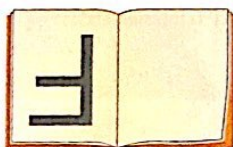
(D)

12. Kumar wrote the letter "F" in black pen.



When he turned the page, the "F" showed through on the other side.

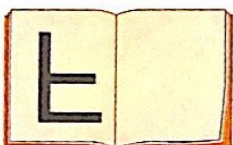
What did the "F" look like on the other side of the page?



(A)



(B)

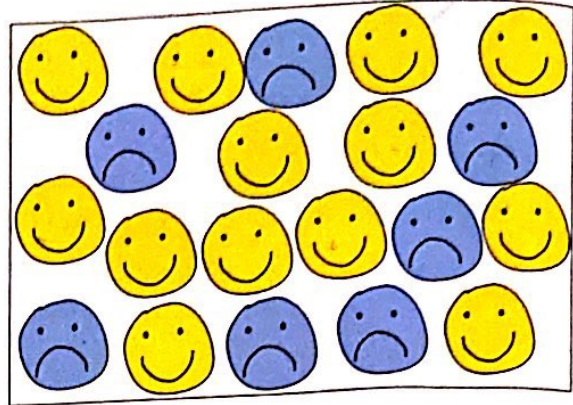


(C)



(D)

13. Here is a group of faces.



What fraction of the group has smiling faces?

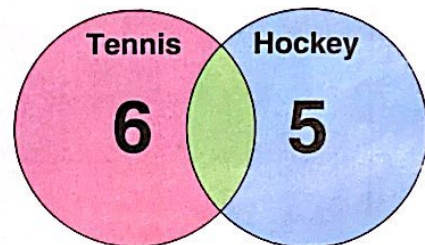
(A)  $\frac{13}{13}$

(B)  $\frac{13}{20}$

(C)  $\frac{7}{13}$

(D)  $\frac{7}{25}$

14. In a group of 20 students there were some who played hockey only, some who played tennis only and some who played both.



How many students played **both** tennis and hockey?

(A) 9

(B) 11

(C) 14

(D) 15

15. A card is missing from this pattern.



Which of these completes the pattern?



(A)



(B)



(C)



(D)

- 16.



How many of these letterboxes have numbers that are factors of 12?

- (A) 1  
(B) 3  
(C) 5  
(D) 6

17. These are the Australian coins. The gold coins are dollars and the silver coins are cents.



Brooke had \$2.00. She spent \$1.55.

What is the least number of coins she could receive in her change?

- (A) 2  
(B) 3  
(C) 4  
(D) 5

18. The clock shows the time at night-time.

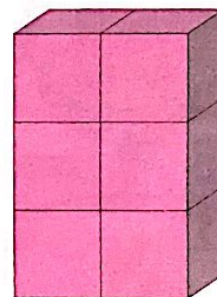


Which of these shows the same time on a 24-hour clock?

- (A) 02:11  
(B) 11:10  
(C) 13:55  
(D) 23:10

19. Six cubes were glued together to make a solid.

All the outside faces of the solid were then painted pink.



How many of the cubes have only three pink faces?

- (A) 6  
(B) 4  
(C) 2  
(D) 0



20. The last digit is missing from this four-digit number.



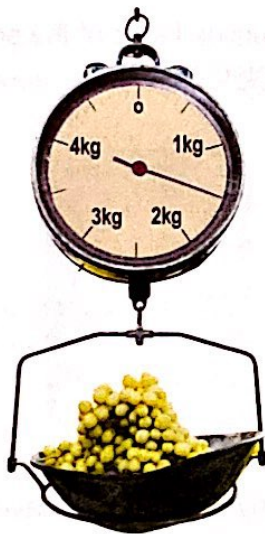
This four-digit number can be divided by both 2 and 5 with no remainder.

What is the missing digit?

- (A) 0 (B) 2 (C) 4 (D) 5

21. Grapes cost \$5 per kilogram.

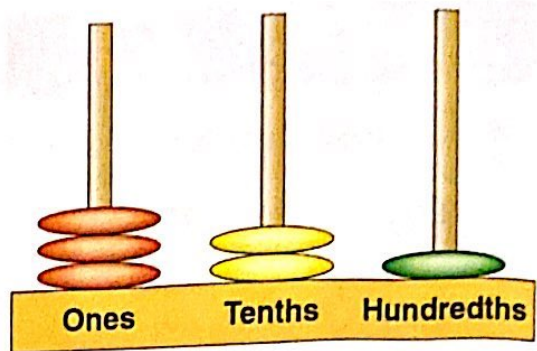
Steve put some grapes on the scales.



How many more kilograms of grapes does he need to make \$10 worth?

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

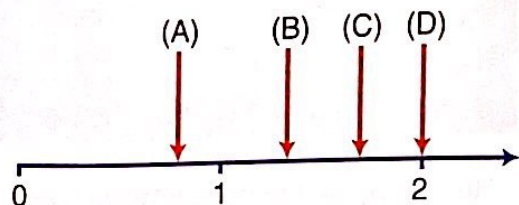
22. This is a bead counter.



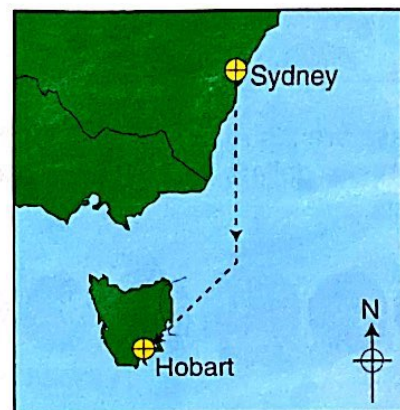
Which number is shown on the bead counter?

- (A) 1.23 (B) 3.21 (C) 123 (D) 321

23. Which arrow is closest to 1.7 on this number line?



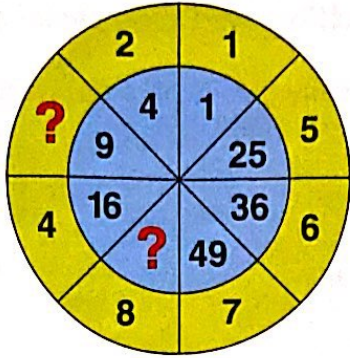
24. This map shows the route a boat sailed from Sydney to Hobart.



In which direction did the boat sail from Sydney to Hobart?

- (A) N then NE  
(B) N then SW  
(C) S then NE  
(D) S then SW

25. These numbers have been arranged in a pattern.

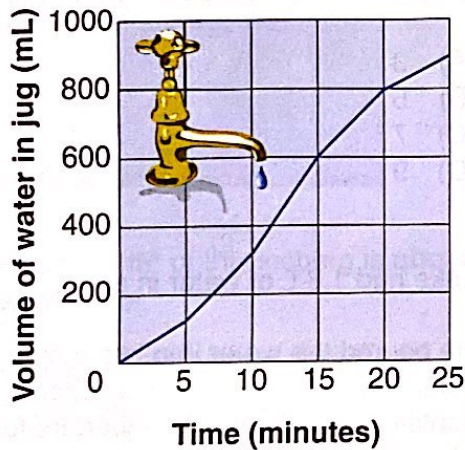


What are the two missing numbers?

- (A) 81 and 3
- (B) 81 and 9
- (C) 64 and 3
- (D) 64 and 9

26. Megan put a jug under a leaking tap. She measured the volume of water in the jug every 5 minutes.

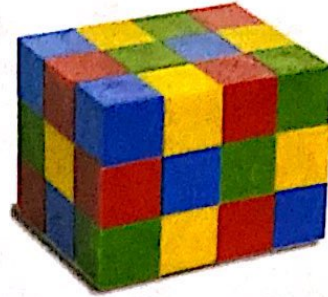
This graph shows her results.



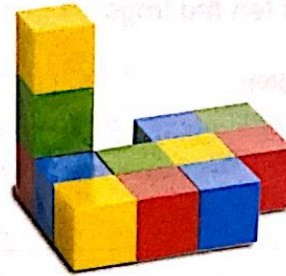
Between which times did the tap leak fastest?

- (A) 5 to 10 minutes
- (B) 10 to 15 minutes
- (C) 15 to 20 minutes
- (D) 20 to 25 minutes

27. Beth has made this prism from small cubes.



James is making one the same size.



How many **more** cubes must James use to finish his prism?

- (A) 12
- (B) 22
- (C) 24
- (D) 36

28. Mark wrote all the numbers from 1 to 100.

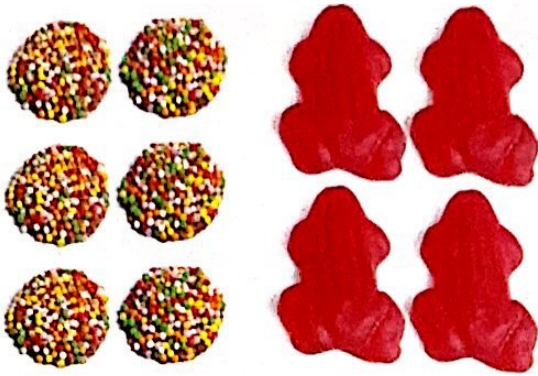
1, 2, 3, 4, ....., 98, 99, 100.

How many times altogether did he write the digit 8?

- (A) nine
- (B) ten
- (C) nineteen
- (D) twenty



29. Six chocolate buttons cost the same as four red frogs.



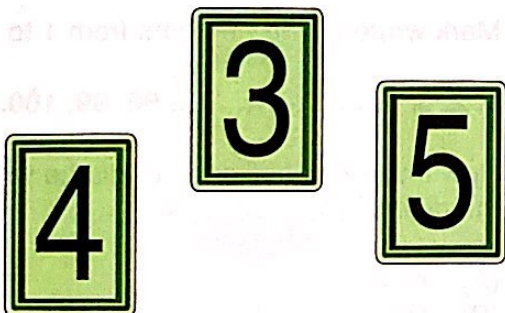
How many chocolate buttons cost the same as ten red frogs?

- (A) twelve
- (B) fifteen
- (C) eighteen
- (D) twenty

30.  $\$32.80 \times 15 = ?$

- (A) \$19 680
- (B) \$196.80
- (C) \$49 200
- (D) \$492

31. Sue makes a three-digit number using these number cards.



What is the chance that the three-digit number is even?

- (A) 1 out of 2
- (B) 2 out of 3
- (C) 1 out of 6
- (D) 2 out of 6

32. Six children played in a chess competition.

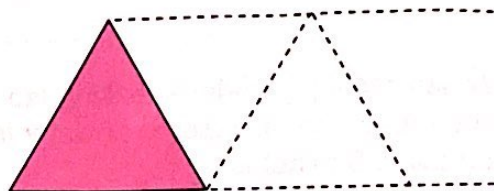
Each child played every other child once.

How many games of chess were played altogether in the competition?

- (A) 15
- (B) 12
- (C) 6
- (D) 5

33. Peter had some triangular tiles with sides 3 cm long.

He placed them side by side to make a trapezium.



If the perimeter of the trapezium was 27 cm, how many tiles did Peter use?

- (A) 3
- (B) 5
- (C) 7
- (D) 9

34. Luke had 1.8 L of water in a jug.

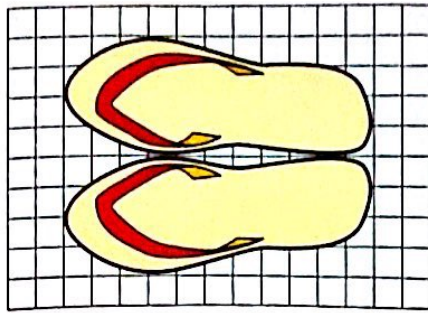
He poured the water into two empty containers of the same size. Each container was then three-quarters full of water.

How much water would each container hold if full?

- (A) 1.35 L
- (B) 1.2 L
- (C) 0.9 L
- (D) 0.6 L



35. A pair of shoes has been left on the doormat.

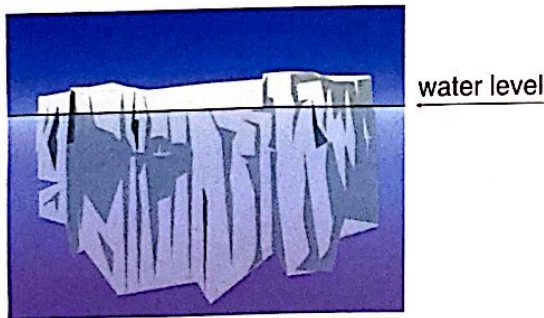


Key:  $\square = 1$  square unit

About how many square units is the area covered by the shoes?

- (A) 45
- (B) 65
- (C) 90
- (D) 150

36. The part of an iceberg above water level is about 10% of its total volume.

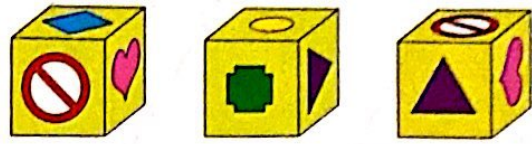



About  $15 \text{ m}^3$  of this iceberg is **above** water level.

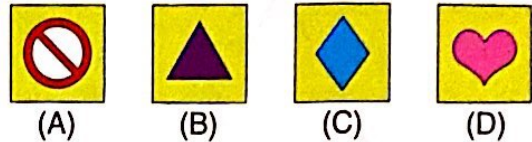
Which of these is closest to the volume of the iceberg **below** water level?

- (A)  $45 \text{ m}^3$
- (B)  $90 \text{ m}^3$
- (C)  $135 \text{ m}^3$
- (D)  $150 \text{ m}^3$

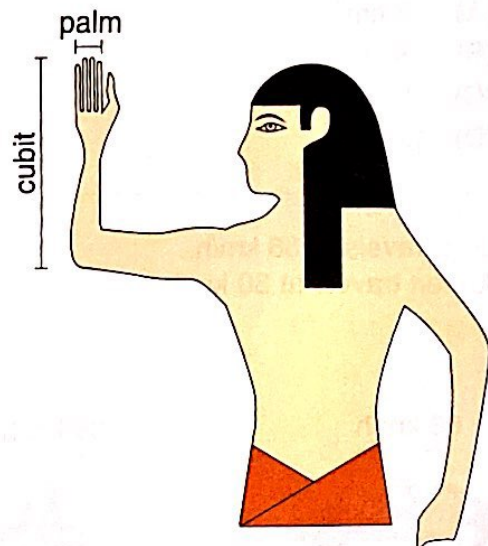
37. Here are three different views of the same cube.



Which face is opposite to  ?



38. Some Ancient Egyptian measures of length were the cubit and the palm.



1 cubit = 7 palms

Which of these is equal to 5 square cubits?

- (A) 35 square palms
- (B) 49 square palms
- (C) 175 square palms
- (D) 245 square palms

39. Kate has 2 equilateral triangles.  
Each triangle has an area of  $6 \text{ cm}^2$ .



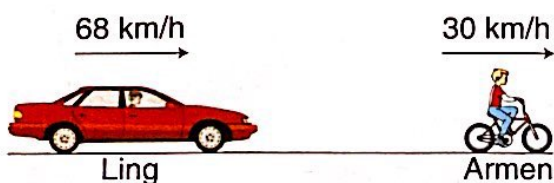
Kate places one triangle on top of the other one to make this symmetrical star.



What is the area of this star?

- (A)  $7 \text{ cm}^2$
- (B)  $8 \text{ cm}^2$
- (C)  $9 \text{ cm}^2$
- (D)  $12 \text{ cm}^2$

40. Ling travels at  $68 \text{ km/h}$ .  
Armen travels at  $30 \text{ km/h}$ .



Armen is  $95 \text{ km}$  ahead of Ling.

If they continue to travel at this speed,  
how many hours will it take Ling to  
catch up to Armen?

- (A) 1
- (B) 1.5
- (C) 2
- (D) 2.5

END OF PAPER