KASLER

Kastelan & Samways Learning & Educational Resources

PRACTICE PAPER 2 SCHOOL CERTIFICATE TEST

MATHEMATICS

SECTION 1

General Test Instructions

- Preparation time: 5 minutes

- Working time: 2 hours

- The supervisor will tell you when to begin the test

- This test has TWO sections

- Attempt ALL questions

- There will be a short break between Section 1 and Section 2

- Calculators may be used in Section 2 only

- The Sample Questions & Formulae Booklet may be used in both sections

Directions for Section 1

1   You have 30 minutes to answer Section 1

2   Section 1   Questions 1-25   (25 marks)

3   Calculators are NOT to be used in Section 1

4   • Complete your answers to Questions 1–12 on

   Section 1 – Answer Sheet 1

5   • Complete your answers to Questions 13–25 on

   Section 1 – Answer Sheet 1

Complete your answers to Questions 1–12 on Section 1 – Answer Sheet 1.

1 $60 \times 300 =$

     (A)   180   (B)   1800   (C)   18 000   (D)   180 000

2   Write 261 968 to the nearest hundred.

     (A)   261 000   (B)   261 900   (C)   261 970   (D)   262 000

3   The number *one million two hundred and seven thousand* is written

     (A)   1 000 207   (B)   1 002 700   (C)   1 270 000   (D)   1 207 000

4 $\dfrac{4}{100} + \dfrac{2}{10} =$

     (A)   0·204   (B)   0·24   (C)   0·42   (D)   0·402

5   20% of 2L =

     (A)   10 mL   (B)   40 mL   (C)   100 mL   (D)   400 mL

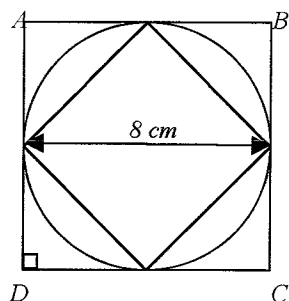**6**   Which decimal is closest to 1·87

     (A)   1·865   (B)   1·88   (C)   1·9   (D)   2·0

7   The fraction $\dfrac{2}{5}$ is

     (A)   less than $\dfrac{1}{3}$ (B)   equal to $\dfrac{8}{20}$

     (C)   equal to 25%   (D)   equal to 2·5

8 The circle drawn inside the square *ABCD* has a diameter of 8cm as shown. What is the perimeter of the square *ABCD*.
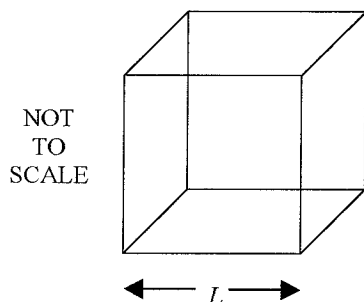

(A) 16 cm

(B) 32 cm

(C) 64 cm

(D) 128 cm

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9 Given α is a whole number which makes the fraction $\dfrac{24}{\alpha}$ between 3 and 4, then α has the value of

(A) 3   (B) 4   (C) 7   (D) 9

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10 The volume of the cube below is 8 cubic centimetres.

The side length (L) of the cube is:

NOT
TO
SCALE

(A) 1 cm

(B) 2 cm

(C) 4 cm

(D) 8 cm

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11 Sally is asked to find 18% of $52·28.
She enters into her calculator 18 ÷ 100 × 5228 and the display is 941·04.

The answer to the nearest five cents, is

(A) 941·05 cents   (B) 94 105 cents   (C) $9·40   (D) $941·05

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12 If $\Omega > 2$, then Ω can have the value of

(A) $-2\dfrac{1}{2}$ (B) 0   (C) $\dfrac{3}{2}$ (D) 4

Complete your answers to Questions 13-25 on Section 1 – Answer Sheet 1

13   Find $3\frac{1}{2}$ % of $400

14   The stem-and-leaf plot below shows the times that a bus departs the terminal.

DEPARTURE TIMES			
am 5	52		
6	14	39	
7	09	32	51
8	16	34	48
9	21	52	
10	21	52	

The first bus departs at 5:52 am.
Scott misses the 8:34 bus by 5 minutes.

How long does he wait for the next bus?

15   The fraction $\dfrac{22}{\alpha}$ has a value between 2 and 3, where α is a whole number. Find a possible value for α.

16   Frozen yoghurt should be stored at –4°C.
The temperature of the freezer is 3°C.

By how many degrees must the freezer decrease to store the frozen yoghurt?

17   Each day Mike wears a jacket, a shirt and a pair of trousers.
The table below shows how many different types of items he owns.

Item	Number of Different Types
Jacket	2
Shirt	4
Trousers	3

How many different combinations can he wear?

18 In a garden furniture set, a table and four chairs cost $115.

If each chair costs $15 each, what is the cost of one table?

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19 Helen buys a pair of jeans for $60.
The next week she sees the same pair of jeans on sale for $51.

What is the percentage discount given on the original price?

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20 When washing dishes the recommended amount of detergent is one capful.

If the recommended amount of detergent is used per wash, the bottle contains enough detergent for 18 washes.

If only $\frac{2}{3}$ of a capful was used per wash, how many washes would you get from one full detergent bottle?

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21 The table below shows the prices of STD telephone calls for every 3 minutes.

STD rates per 3 minutes of telephone calls

DAY RATE	8am - 6pm	52 cents
NIGHT RATE	6pm - 8am	41 cents

Find the cost of the call if Henry rang Harriet at 8:30pm for 12 minutes

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22

$$1 \qquad = 1 \qquad = \frac{1}{2}(1 + 1)$$

$$1 + 5 \qquad = 6 \qquad = \frac{2}{2}(1 + 5)$$

$$1 + 5 + 9 \qquad = 15 \qquad = \frac{3}{2}(1 + 9)$$

$$1 + 5 + 9 + 13 \qquad = 28 \qquad = \frac{4}{2}(1 + 13)$$

Use the pattern to find the value of

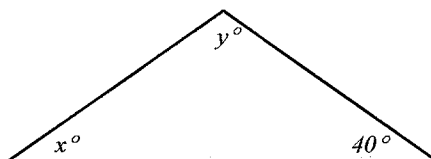$$1 + 5 + 9 + 13 + \ldots + 25$$

Each of Questions 23, 24 and 25 may have MORE THAN ONE correct answer.
Fill in EVERY answer for each of these questions on Section 1 – Answer Sheet 1.

23 $4 \cdot 6 \div 2$ is the same as

(A) $4 \cdot 6 \times 5 \div 10$ (B) $4 \cdot 6 \div (10 \div 5)$ (C) $46 \times \dfrac{1}{2}$ (D) $46 \div 2$

24 In the triangle below, the values of x and y could be

NOT TO
SCALE

(A) $x = 30$ and $y = 90$ (B) $x = 50$ and $y = 90$

(C) $x = 40$ and $y = 90$ (D) $x = 25$ and $y = 115$

25 Which of the following is equivalent to $\dfrac{4}{9}$?

(A) $\dfrac{8}{18}$ (B) $\dfrac{2}{3}$

(C) $\dfrac{16}{81}$ (D) $2\dfrac{1}{4}$