# EXAM-STYLE CLASS TEST

| MARKS | DURATION | QUESTIONS |
|---|---|---|
| 38 | 1 hour | 4 |

Name: _____ Class: _____

Date: _____

MARK ____ / 38

## INSTRUCTIONS AND INFORMATION

1. Answer **ALL** the questions in this question paper.
2. Answer QUESTION 1 by **circling** the letter (A–D) in the answer grid at the end of that section.
3. Show **ALL** calculations clearly.
4. Show all units where applicable.
5. Number the answers correctly according to the numbering system used in this question paper.
6. A non-programmable calculator may be used, unless stated otherwise.
7. Write neatly and legibly.

## QUESTION 1 [10 MARKS]

Four options are given as possible answers to the following questions. Choose the correct answer and circle the letter (A–D) in the grid at the end of this section. If you want to change your choice, put a cross through the wrong letter and circle your new choice.

**1.1** The area of a rectangle 8 cm by 5 cm is ... (1)

**A)** 80 cm$^2$ **B)** 40 cm$^2$
**C)** 26 cm$^2$ **D)** 13 cm$^2$

**1.2** The perimeter of that same rectangle is ... (1)

**A)** 40 cm **B)** 26 cm
**C)** 80 cm **D)** 13 cm

**1.3** The area of a triangle with base 10 cm and PERPENDICULAR height 6 cm is ... (1)

**A)** 32 cm$^2$ **B)** 16 cm$^2$
**C)** 30 cm$^2$ **D)** 60 cm$^2$

**1.4** The height used in the area of a triangle must be ... (1)

**A)** the longest side **B)** the shortest side
**C)** PERPENDICULAR to the base **D)** any side

**1.5** The CIRCUMFERENCE of a circle of radius 7 cm, with $\pi \approx 3{,}14$, is ... (1)

**A)** 43,96 cm **B)** 21,98 cm
**C)** 22 cm **D)** 153,86 cm

**1.6** The AREA of that same circle is ... (1)

**A)** 153,86 cm$^2$ **B)** 307,72 cm$^2$
**C)** 43,96 cm$^2$ **D)** 21,98 cm$^2$

**1.7** A circle has a diameter of $10$ cm. Its area, with $\pi \approx 3{,}14$, is ... (1)

**A)** $157\ \text{cm}^2$ **B)** $78{,}5\ \text{cm}^2$

**C)** $31{,}4\ \text{cm}^2$ **D)** $314\ \text{cm}^2$

**1.8** The area of a square is $49\ \text{cm}^2$. Its perimeter is ... (1)

**A)** $196$ cm **B)** $7$ cm

**C)** $14$ cm **D)** $28$ cm

**1.9** A rectangle has an area of $48\ \text{cm}^2$ and a length of $8$ cm. Its breadth is ... (1)

**A)** $24$ cm **B)** $40$ cm

**C)** $56$ cm **D)** $6$ cm

**1.10** If the sides of a square are DOUBLED, its area is multiplied by ... (1)

**A)** $4$ **B)** $16$

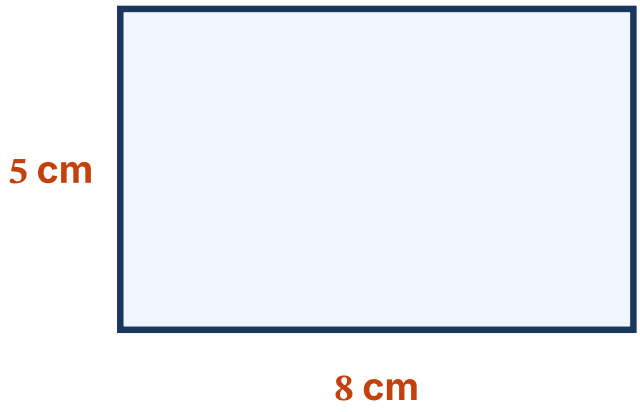
**C)** $2$ **D)** $8$

**ANSWER GRID — CIRCLE YOUR ANSWERS FOR QUESTION 1**

| | | | | |
|---|---|---|---|---|
| **1.1** | A | B | C | D |
| **1.2** | A | B | C | D |
| **1.3** | A | B | C | D |
| **1.4** | A | B | C | D |
| **1.5** | A | B | C | D |
| **1.6** | A | B | C | D |
| **1.7** | A | B | C | D |
| **1.8** | A | B | C | D |
| **1.9** | A | B | C | D |
| **1.10** | A | B | C | D |

## QUESTION 2 [12 MARKS]

The diagram below shows a rectangle. Use $\pi \approx 3{,}14$ where needed.




**2.1** Calculate the perimeter of the rectangle. (3)

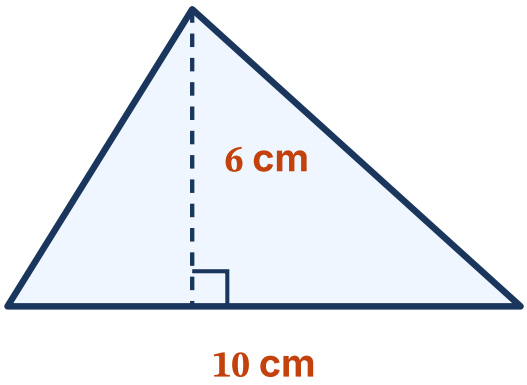
**2.2** Calculate the area of the rectangle, and hence the area of a rectangle whose length and breadth are BOTH doubled. (3)

**2.3** A square has a side of $6$ cm. Calculate its perimeter and its area. (3)

**2.4** A different rectangle has an area of $48$ cm$^2$ and a length of $8$ cm. Calculate its breadth. **(3)**

## QUESTION 3 [8 MARKS]

The diagram below shows a triangle with its perpendicular height marked.




**3.1** Write down the formula for the area of a triangle, and explain where the ½ in it comes from. **(3)**

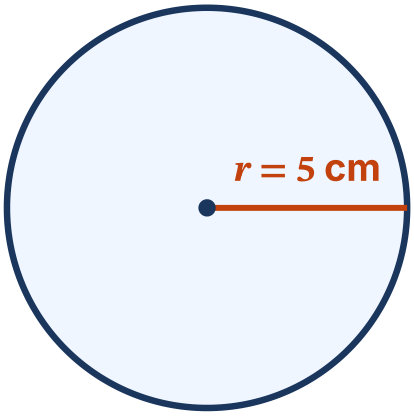
**3.2** Calculate the area of the triangle. **(3)**

**3.3** Explain why the height used must be PERPENDICULAR to the base. **(2)**

## QUESTION 4

**[8 MARKS]**

The diagram below shows a circle. Use $\pi \approx 3{,}14$.




**4.1** Calculate the circumference of the circle. **(3)**

**4.2** A different circle has a radius of $10$ cm. Calculate its area. **(3)**

**4.3** State the difference between the circumference and the area of a circle, and give the unit of each. **(2)**

**TOTAL: 38 marks**

*This question paper consists of 4 questions.*

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