

Primary 3 · Mathematics · Advanced Maths Practice

Mixed problems 3

Time **45 min** Marks **36** Questions **12**

Name _____ Class _____ Date _____ Score _____ / 36

1. Section A has 6 multiple-choice questions. Write the number of the correct option.
2. Section B has 6 questions. Show your working in the space provided.

Section A

Questions 1 to 6 carry 2 marks each.

- 1 Which of the following fractions lies between $\frac{1}{4}$ and $\frac{2}{5}$? [2]

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

(2) $\frac{1}{6}$

(3) $\frac{3}{8}$

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

- 2 Look at this number pattern. [2]

240, 265, 295, 330, 370, ...

What number comes next?

(1) 405

(2) 410

(3) 415

(4) 420

- 3 $\blacktriangle \times \blacksquare$ is an odd number, and both $\blacktriangle$ and $\blacksquare$ are whole numbers. [2]

Which of these must work out to an even number?

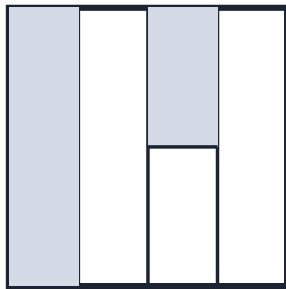
(1) $\blacktriangle + 6$

(2) $\blacksquare \times \blacksquare$

(3) $\blacksquare - 4$

(4) $\blacktriangle + \blacktriangle$

- 4** Flags are fixed along a rope, 3 m apart, with a flag at each end. There are 36 flags in all. How long is the rope? [2]
- (1) 105 m
(2) 108 m
(3) 111 m
(4) 114 m
- 5** Hana has only \$1 coins and 50-cent coins, and they add up to \$4.50. Which of these cannot be the number of coins she has? [2]
- (1) 5
(2) 6
(3) 8
(4) 9
- 6** A square is cut into 4 equal strips. Two of the strips are shaded, and one of those shaded strips is then split in half, with only one half kept shaded. What fraction of the whole square is shaded? [2]



- (1) $\frac{1}{4}$
(2) $\frac{3}{8}$
(3) $\frac{1}{2}$
(4) $\frac{5}{8}$

Section B

Questions 7 to 12 carry 4 marks each. Show your working.

- 7** What digit does $2 + 4 + 6 + \dots + 80$ end with? [4]

ANSWER _____

- 8** A stall holder needs to sell every cupcake, tart and bun before he covers his costs. [4]
 If he sells all the cupcakes, he is still \$46 short.
 If he sells all the tarts, he is still \$38 short.
 If he sells all the buns, he is still \$24 short.
 How much must he take in altogether to cover his costs?

ANSWER _____

- 9 A and B each stand for a digit from 1 to 9.

[4]

$$\frac{A \times A \times A}{2 \times B \times B} = \frac{1}{4}$$

What is the value of $\frac{A}{B}$?

ANSWER _____

- 10 A bottle of milk fills 5 mugs equally. If the same bottle is shared equally among 8 mugs instead, each mug gets 90 ml less. How many millilitres of milk are in the bottle?

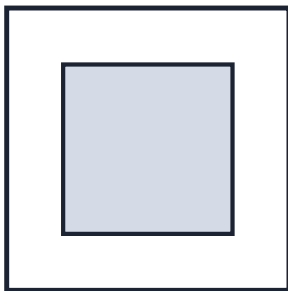
[4]

ANSWER _____ ml

- 11** Priya has 12 strawberries. Arun has 3 kiwis. [4]
 Priya gives some strawberries to Arun until she has half as many strawberries as he does.
 How many pieces of fruit does Arun have then?

ANSWER _____ pieces

- 12** The diagram shows two squares. The shaded square sits inside the larger one, and the unshaded border has an area of 48 cm^2 . The two squares have side lengths that differ by 4 cm. Find the perimeter of the shaded square. [4]



ANSWER _____ cm

END OF PAPER