

ABC SECONDARY SCHOOL

Final Examination 200X Secondary 1 Express

Mathematics Paper 1 (50 marks)

Time: 8.00 - 9.00 am

October 200X

Duration : 1 hour

No Additional Materials Required

Name:

Sec. 1 / Reg. No.:

INSTRUCTIONS TO CANDIDATES

Write your name, class and register number in the spaces above.

Answer ALL questions.

Write your answers in the spaces provided in the question paper.

If working is needed, it must be clearly shown below that question.

Omission of essential working will result in the loss of marks.

CALCULATORS ARE **NOT** ALLOWED IN THIS PAPER.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [] at the end of each question or part question.

You should not spend too much time on any one question.

This question paper consists of 6 printed pages.

Calculators **must not** be used for this paper.

1 Evaluate (a) $(\frac{2}{3} \times \frac{1}{4} - \frac{1}{12}) \div \frac{1}{2}$ (b) $(0.3)^2 \div 0.01 \times 3$

Ans: (a) [2]

(b) [2]

2 Evaluate (a) $(108) \div 3 + (-10) \times 9$ (b) $1\frac{4}{5} \times (10\frac{1}{2} - 7\frac{4}{9})$

Ans: (a) [2]

(b) [2]

3 Given that $a = 2$, $b = -3$, $c = 4$, find the value of $4(a - 3b) - 5c$.

Ans: [2]

4 Simplify (a) $4(17x - 7y) - 4(5x + 7y)$ (b) $3\{5x + 3(7x + 10y)\} - 7y$

Ans: (a) [2]

(b) [2]

5 Solve the equations.

(a) $2(x - 8) = 5x + 68$

(b) $\frac{2x-17}{9} = \frac{x-3}{10}$

Ans: (a) $x = \dots\dots\dots$ [2]

(b) $x = \dots\dots\dots$ [2]

6 An aircraft takes 15 hours to complete a journey when its speed is 770 km/h. If its speed is reduced to 660 km/h, how long will the journey take?

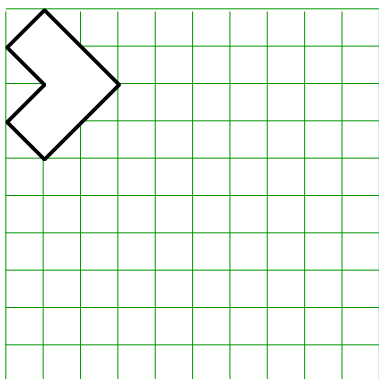
Ans: $\dots\dots\dots$ [3]

7 Henry deposited a sum of \$8 000 in a bank which pays simple interest at a rate of 1.2% per annum. How much interest will Henry receive after 9 months?

Ans: $\dots\dots\dots$ [3]

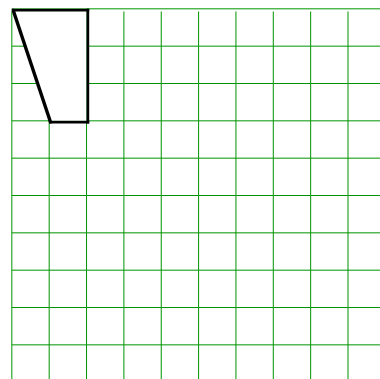
8 Draw on the graph paper below to show how each shape tessellates.

(a)



[2]

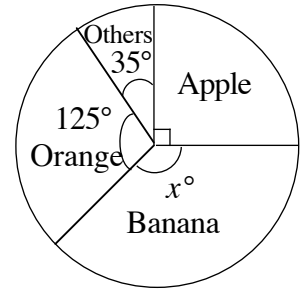
(b)



[2]

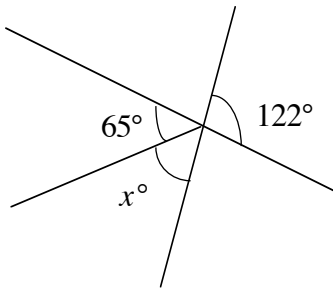
9 Children from a certain school were asked to choose their favourite fruit. The results are shown on the pie chart.

- (a) Calculate (i) the value of x
 (ii) the percentage of children who chose apple.
 (b) The number who chose orange was 56 more than those who chose apple. Calculate the number of children in the school.

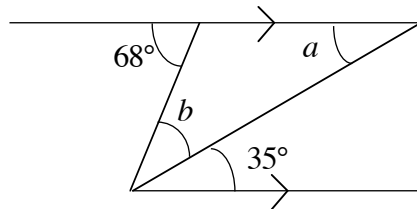


Ans: (a) (i) $x = \dots\dots\dots$ [1]
 (ii) $\dots\dots\dots$ [1]
 (b) $\dots\dots\dots$ [2]

10 (a) Find the value of x .



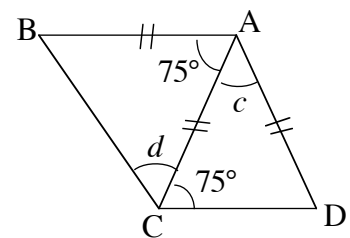
(b) Find the values of a and b .



Ans: (a) $x = \dots\dots\dots$ [1]
 (b) $a = \dots\dots\dots$, $b = \dots\dots\dots$ [2]

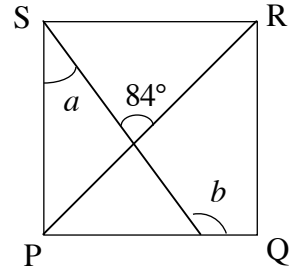
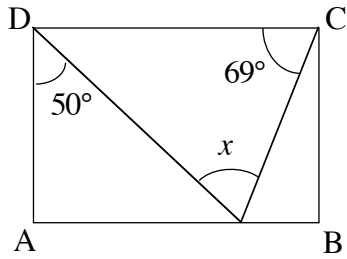
11 In the diagram $AB = AC = AD$.

- (a) Calculate the values of c and d
 (b) What special type of quadrilateral is ABCD?



Ans: (a) $c = \dots\dots\dots$, $d = \dots\dots\dots$ [2]
 (b) $\dots\dots\dots$ [1]

- 12 (a) ABCD is a rectangle. Find the value of x . (b) PQRS is a square. Find the angles a and b .



Ans: (a) $x = \dots\dots\dots$ [1]

(b) $a = \dots\dots\dots$, $b = \dots\dots\dots$ [2]

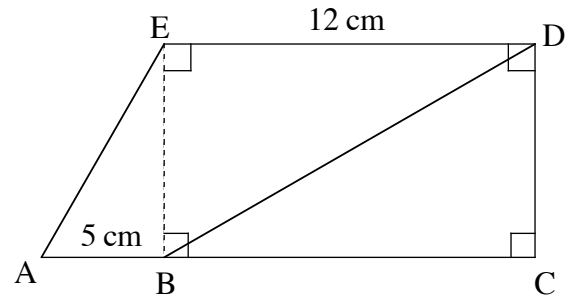
- 13 (a) The area of a circle is $38\frac{1}{2}$ cm². Find its radius. [Take $\pi = \frac{22}{7}$.]

Ans: (a) Radius = $\dots\dots\dots$ cm [2]

- (b) Convert 0.35 m² to cm².

Ans: (b) $\dots\dots\dots$ cm². [1]

- 14 ABCDE is a trapezium. $AB = 5 \text{ cm}$ and $DE = 12 \text{ cm}$. Given that the area of triangle BDE = 48 cm^2 , calculate (a) the length of BE
 (b) the area of the trapezium.



Ans: (a) $BE = \dots\dots\dots\text{cm}$ [1]

(b) Area = $\dots\dots\dots\text{cm}^2$ [2]

- 15 The cross-section of a right prism is a triangle of base 6 cm and height 2.5 cm. Find the volume of the prism if its length is 40 cm.

Ans: (a) Volume = $\dots\dots\dots\text{cm}^3$ [3]