

Sec 2 Math WA1 Mock Exam Paper 2025

Time Allowed: 1 hour

Total marks: 30

Instructions:

- Answer all questions.
- Show your workings clearly.
- Marks are indicated for each question.
- Give your best shot!

Additional materials:

- Graph paper
 - Calculator
-

1. The sum of three consecutive odd numbers is equal to 183.
Find the largest of the three numbers.
S2/WA1/2022/STC/Q2

Answer:[3]

2. (a) Solve the inequality $5 + 2x \leq 4x$.
S2/WA1/2022/Jurongville/Q2

Answer:[2]

- (b) State the smallest prime number that fulfills the inequality $5 + 2x \leq 4x$.

Answer:[1]

3. Solve the simultaneous equations.

$$6x + 4y = -20$$

$$7x - 3y = 38$$

S2/WA1/2022/NHHS/Q1

Answer:[3]

4. Expand and simplify the following expressions.

S2/WA1/2022/Jurongville/Q8

(a) $3a + 5(a - 2)$

Answer:[1]

(b) $x(5x - y) - 2x^2 - 3xy$

Answer:[2]

(c) $(a + 5b)(x + 3y)$

Answer:[2]

(d) $(4x - 3)(7x + 9) - (x + 5)(x - 5)$

Answer:[3]

5. (a) Express $4x - 3y = 12$ in the form of $y = mx + c$.
S2/WA1/2022/STC/Q4

Answer:[1]

- (b) Hence, state the gradient and the vertical intercept.

Answer:[1]

(c) Determine whether $(-2, -6)$ is a solution to the equation $4x - 3y = 12$. Show your working clearly below.

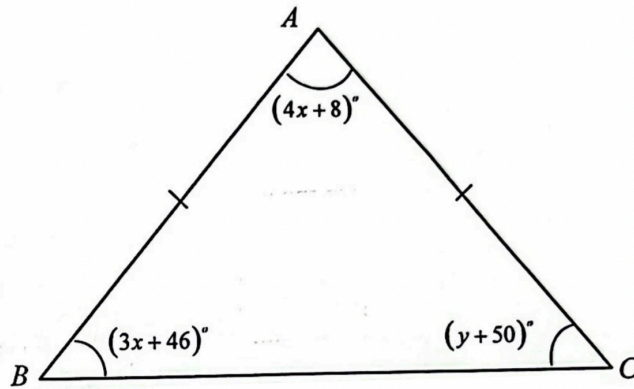
Answer:[1]

(d) Create a linear equation in the form of $px + qy = r$ so that the pair of simultaneous equations
(i) has no solution,

Answer:[1]

(ii) has an infinite number of solutions,

Answer:[1]



6. The diagram shows an isosceles triangle ABC with $AB = AC$ and the angles as shown.
S2/WA1/2022/STC/Q6

(a) Form a pair of simultaneous equations in terms of x and y and show that it can be reduced to $3x = y + 4$ and $7x + y = 76$.

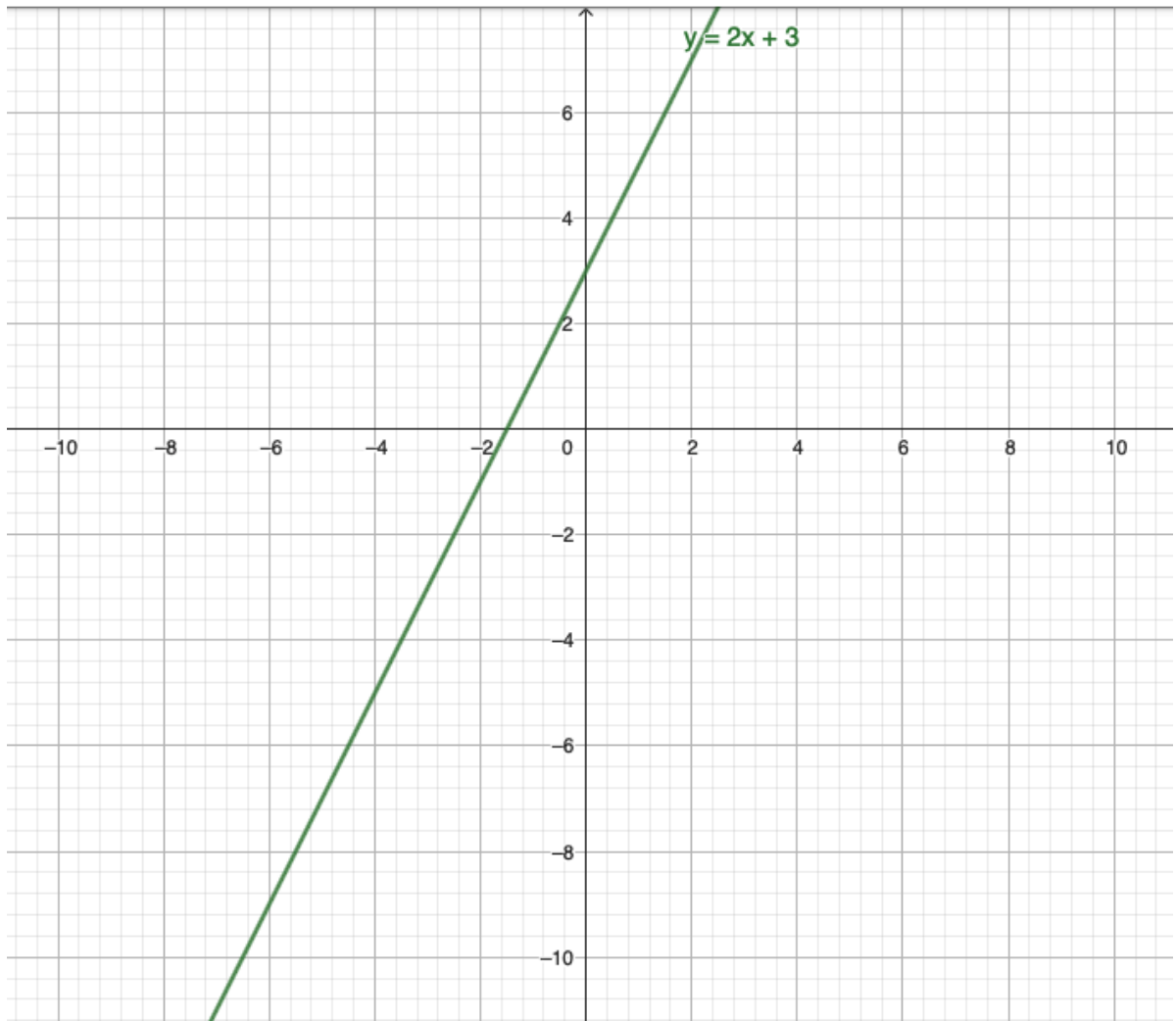
Answer:[2]

(b) Hence, find the value of x and of y .

Answer:[3]

7. The graph of $y = 2x + 3$ is drawn on the grid below.

S2/WA1/2022/NHHS/Q6



(i) On the same axes, draw the graph of $y = -3x - 2$. [2]

(ii) Hence, solve the simultaneous equations, $y = 2x + 3$ and $y = -3x - 2$.

Answer:[1]

End of Paper