SeaHawk Tutors

Edexcel IGCSE Maths: First 40 Marks Paper 1

1.

a. Simplify:

i. $a^4 \times a^5 \div a^{-3}$

ii. $(6x^3)^2$ [3]

b. Evaluate:

i. $16^{1/2}$

ii. 11^0 [2]

c. Solve:

$(x - 3)^3 = 64$ [2]

2.

a. Find the HCF and LCM of 72 and 90 [3]

b.

i. Write $\sqrt{72}$ in the form $a\sqrt{b}$ where a and b are integers. [2]

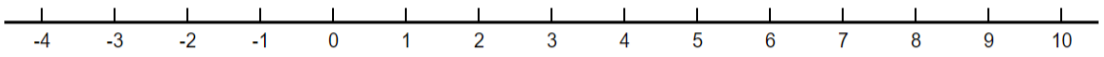
ii. Simplify: $(\sqrt{12} - \sqrt{3})^2$ [2]

3. a is directly proportional to b. When b is 25, a is 175.

a. Find the value of a when b is 0.7. [2]

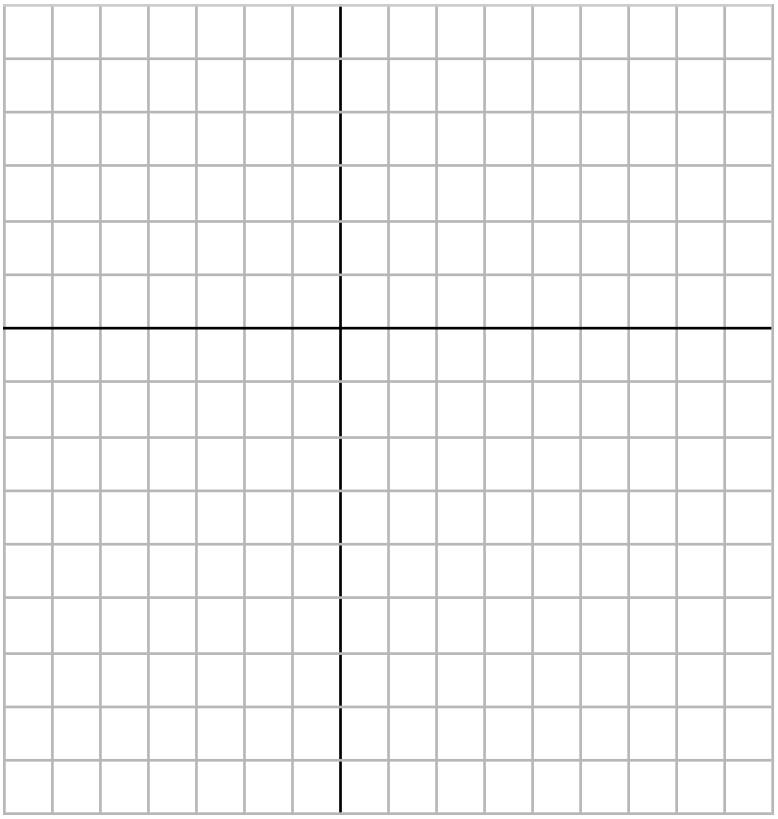
b. What is the value of b when a is 24.5 [2]

4. Solve the inequality and draw it on the number line: $4x - 5 > 23$



[3]

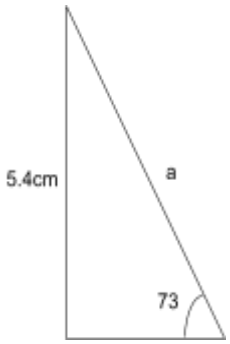
5. Plot a graph of the equation $y = 2x - 3$ for the range of x from -3 to 4.
Use a scale of 2 squares = 1 unit on the x-axis and 1 square = 1 unit on the y-axis. [3]



12. Make t the subject of the equation

V - 2t = 3(t + a) [2]

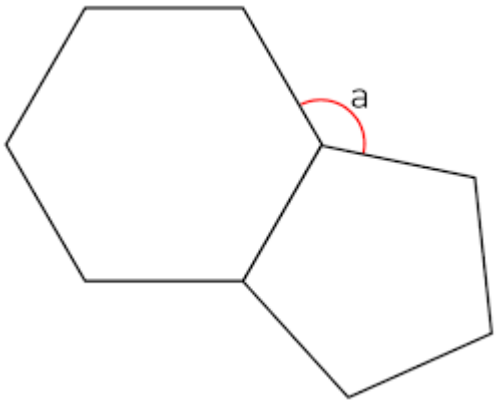
13. Find the length a in the following right-angled triangle. Give your answer to 3sf.



[2]

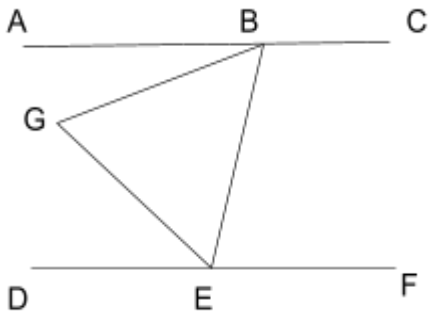
14.

a. The diagram shows a regular hexagon and a regular pentagon. Find the size of the angle marked a.



[4]

b. ABC and DEF are parallel lines.



BG = BE
Angle DEG = 43°
Angle GEB = 57°

Find the size of angle ABG. Explain your reasoning at each step. [3]

15. A group of students scored the following marks in a test:
26, 40, 31, 35, 28, 38, 30, 33.

a. What is the median score for the group? [2]

b. What is the range for the group? [1]

c. Zoe says “This group has no mode.” Is she correct? Explain your answer. [1]

d. Another student who took the test late scored 32 marks. Explain how this new score affects the median for the group. [1]