

Quick Revision Sheet 11

Some space is provided for quick calculations. Show your full working on a separate sheet where appropriate and hand this in to your teacher for marking.

1. Solve the equation $5x - 5 = 2x + 10$ C _____

2. There are 500 students at school. Of these, 400 stay for school lunch. The information is put into a pie chart. What angle should be used to represent those who stay at school for lunch? C _____

3. Write 240 as a product of prime factors B _____

4. Solve the simultaneous equations:
 $2x - 3y = 8$, $4x + y = 2$ B _____

5. Divide £72 in the ratio 3:9 C _____

6. Calculate 20000×0.4 C _____

7. The probability of a toy being faulty is 0.004. Find the probability of a new toy not being faulty. C _____

8. In ten tests Emily scores 4, 7, 8, 6, 6, 8, 10, 4, 8, 8.
 - (a) Find her mean mark C _____
 - (b) Find her modal mark C _____
 - (c) Find her median mark C _____
 - (d) On the evidence you have, estimate the probability of Emily scoring at least 8 in a test C _____
 - (e) Find the range of her marks C _____

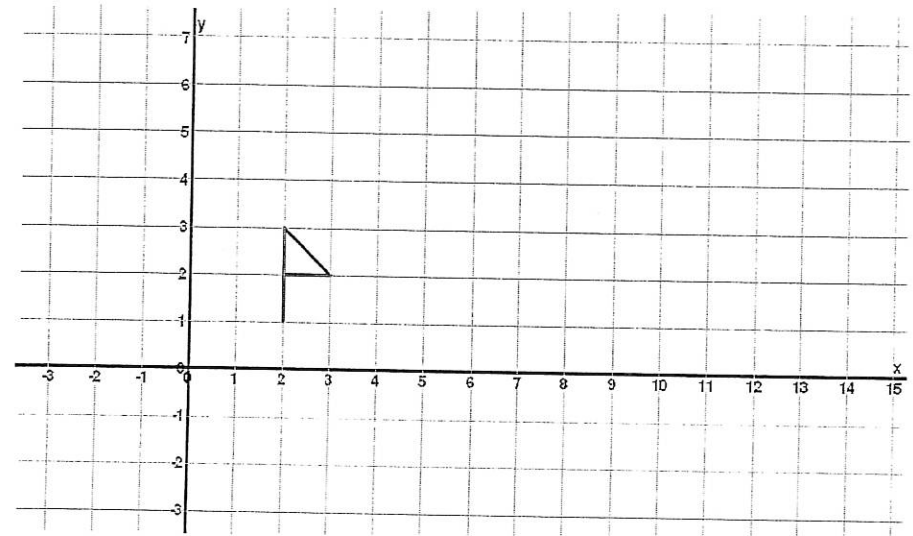
9. Calculate the distance between the points (1, 1) and (6, 13) B _____

10. The area of a circle is 40cm^2
 - (a) Calculate the radius of the circle A _____
 - (b) Calculate the circumference of the circle (Give both answers to 3 significant figures) A _____

11. Calculate the distance marked x B _____

12. $A = bc^3 - t^2$. Calculate A when $b = 3$, $c = 4$ and $t = 8$. B _____

13. Find the gradient of the tangent to $y = x^2$ at (3, 9) A _____
14. Find the equation of a line, which is parallel to $y = 2x + 3$ and passes through (1, 3) B _____
15. Find 12% of \$30 C _____
16. A line passes through (2, 2) and (6, 3). Show that the equation of the line can be written in the form $4y - x = 6$. A _____
17. Differentiate $x^3 - 5x + 6 + x^{-2}$ A _____
18. Reflect the flag in the line $x = 3$ A _____



19. The dimensions of a rectangle are 5cm by 4cm. Calculate the maximum area if the measurements are correct to the nearest centimetre. B _____
20. Simplify $\frac{3}{\sqrt{2}} + \sqrt{2} + \sqrt{8}$ A* _____