Charterhouse Entrance Examination for year 9

Mathematics

No calculators allowed 45 Minutes

Attempt as many questions as you can, showing clear method. Do not worry if you do not have time to finish.

1. Calculate a) 21×76 b) $434 \div 7$

2. I think of a number, double it and subtract 17. The answer is 331. Which number did I think of ?

3. Find two numbers that add up to give 17 and multiply together to give 52.

4. The area of a square is 121 cm^2. What is its perimeter?

5. Calculate $\frac{3}{4} + \frac{2}{5}$

6. Calculate $1\frac{2}{5} \div 1\frac{4}{5}$

7. If x = 4, y = -2 and z = -6 find the value a) x – y b) yz c) $3y^2$

8. Starting with the smallest first, write the following in order of size:

   0.57, 50%, 3/5, 0.507 and 22/45

9. Given that $4567 \times 9876 = 45103692$ find the value of a) 45.67×98760 b) $4510.3692 \div 98.76$

10. Solve the following equations: a) $3x + 17 = 62$ b) $7 - 2x = 11$ c) $4(x + 1) + 2 = 10$ d) $5 - 3(2 - x) = 7$

11. Calculate $2 \times 2 \times 17 \times 10 \times 5 \times 5$

12. I have 200 coins which are either worth 2p or 5p. All together they are worth £6.04. How many 2p coins do I have?

The end