

Christmas Revision Calendar

December

1 Factorise:
 $x^2 + 10x + 21$
 $(x+3)(x+7)$

2 Work out:
 6.34×5.2
 32.968

3 Simplify:
 $(2x^3y)^3$
 $8x^9y^3$

4 6, 10, 14, 16
 Write the nth term:
 $4n + 2$

5 Write in standard form:
 0.00068
 6.8×10^{-4}

6 Change:
 4500mm^3 into cm^3
 4.5cm^3

7 Solve:
 $6x + 4 = x + 17$
 $x = 13/5$

8 Simplify:
 $2p^3 \times 5p^4$
 $10p^7$

9 Estimate:
 $\text{£}19.65 \times 385$
 $\text{£}8,000$

10 Factorise:
 $2xy + 12x^2$
 $2x(y + 6x)$

11 Work out the fraction in between:
 $1/9$, $1/6$ and $1/18$

12 Solve:
 $4x + 7 \geq 19$
 $x \geq 3$

13 Simplify:
 $3x + 15$
 $\frac{x+5}{4} \times 12$

14 Write as a product of prime factors:
 720
 $2^4 \times 3^2 \times 5$

15 Expand and simplify:
 $(3m + 3)(2m - 7)$
 $6m^2 - 15m - 21$

16 The nth term of a sequence is $3n + 5$.
 Is 108 a term in this sequence?

17 Simplify: $\frac{18n-5}{12}$
 $\frac{3n+4}{3} + \frac{2n-7}{4}$

18 Find:
 63% of $\text{£}180$
 $\text{£}113.40$

19 Solve:
 $3(x+5) = 2(x-9)$
 $x = -33$

20 Work out:
 $3 \frac{2}{5} \div 1 \frac{3}{4}$
 $28/5 = 5 \frac{3}{5}$

21 Calculate the area of a semicircle with a diameter of 32cm
 $128\pi = 402.124...$

22 Make t the subject:
 $w = 3t + 11$
 $t = \frac{w-11}{3}$

23 Write the value of:
 $64^{1/2}$
 8

24 Rudolf, Vixen and Dancer share carrots in the ratio 4:5:7. Dancer get 18 more carrots than Rudolf. How many carrots did they share in total? 96

And Relax for Christmas Day!!

Find somewhere quiet to work!

Identify the topics you need to work on!

Practice in small chunks every day!

Ask for help if you are still unsure!