
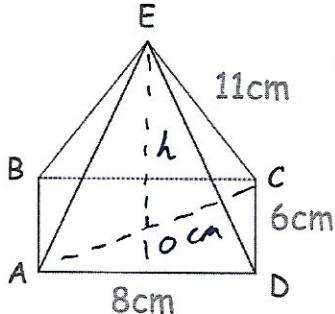


| 10th January  |  | <br>Corbettmaths |
|---|--|---|
| $\frac{y^7 \times y^{11}}{y^4 \times y^n} = y^5$ <p>Find the value of n</p> $\frac{y^{18}}{y^{4+n}} = y^5$ $18 - (4+n) = 5$ $14 - n = 5$  |  | $n = 9$   |
| <p>Write <math>2x^2 + 12x - 3</math> in the form <math>a(x+b)^2 + c</math></p> $2[x^2 + 6x] - 3$ $2[(x+3)^2 - 9] - 3$ $2(x+3)^2 - 18 - 3$   |  | $2(x+3)^2 - 21$   |
|  <p>Calculate the height of the pyramid</p> $AC^2 = 6^2 + 8^2$ $AC^2 = 100$ $AC = 10$   |  | $h^2 = 11^2 - 5^2$ $h^2 = 121 - 25$ $h = 4\sqrt{6} \text{ cm}$                                      |
| <p>Work out the equation of the tangent to the curve <math>y = x^3 + 4x^2 + x</math> at the point <math>(-1, 2)</math></p> $\frac{dy}{dx} = 3x^2 + 8x + 1$ <p>when <math>x = -1</math></p> $\frac{dy}{dx} = 3 - 8 + 1$ $= -4$ |  | $y = -4x + c$ $2 = 4 + c$ $c = -2$ $y = -4x - 2$  |