



GCSE – Year 10

Weekly Tutorial 02

1. Expand and simplify; $(2 - x)(x + 3)(x - 4)$

2. Simplify.

a. $\left(\frac{125}{64}\right)^{-\frac{2}{3}}$

b. $3\sqrt{\frac{x^3}{8y^6}}$

3. Factorise; $2x^2 - x - 6$

4. Rationalize the denominator.

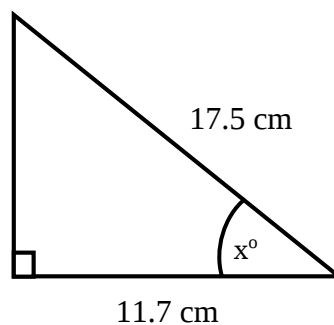
a. $\frac{\sqrt{5}+2}{\sqrt{5}-2}$

b. $\frac{2\sqrt{3}+3}{2\sqrt{3}+2}$

c. $\frac{\sqrt{3}}{(\sqrt{3}+1)^2}$

d. $\frac{\sqrt{63}-\sqrt{28}}{\sqrt{28}-3}$

5. Find the angle x° .



6. $h(x) = 2x^2 - 1$ and $g(x) = 3x + 2$

a. Find $h(-2)$ and $g(3)$

b. Find $gh(-2)$

c. Find $hg(x)$

7. Make x the subject of the formula; $5(2x + y - 3) = 3x - 2y$

8. A bank pays compound interest of 5% per annum on its savings accounts. Mark invest £ 10 000 for 4 years. Calculate the total interest gained after 4 years.

9. $A:B = 3:5$, $B:C = 2:4$; Find the ratio $A:B:C$

10. Solve; $\frac{2x+3}{3} = \frac{x-2}{2}$