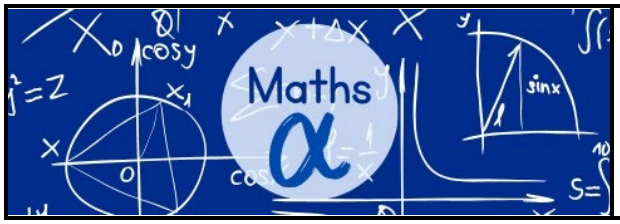


Year 08
Weekly Tutorial - 23

mathsalpha.com

1. Simplify

a) $3x^2 \times (2x)^{-1}$

b) $2 \times 3^5 \times (27)^{-1}$

2. Expand and simplify.

a) $6\left(\frac{x}{3} - 2\right) - 4\left(\frac{x}{2} + 3\right)$

b) $(3x - 2)(x + 5)$

c) $(5x - 1)(x + 3)(x - 4)$

3. Solve; $\frac{3x-2}{5} = \frac{x-7}{2}$

4. Solve.

$$4x + 2y = 13$$
$$x - 4y = 1$$

5. Factorize; $4x^2 - 31x + 21$

6.

a) Prove that there is a root for the equation $3x^3 - 5x^2 + 3x - 5 = 0$, between 1 and 2.

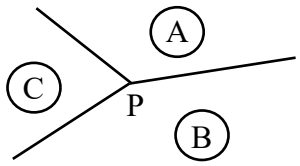
b) Find the solution to $3x^3 - 5x^2 + 3x - 5 = 0$ correct to 1dp.

7. Simplify; $3\frac{2}{4} - 2\left(1\frac{1}{3} + 1\frac{1}{4}\right)$

8. Solve; $\frac{3x-11}{2} \leq 2x - 5$

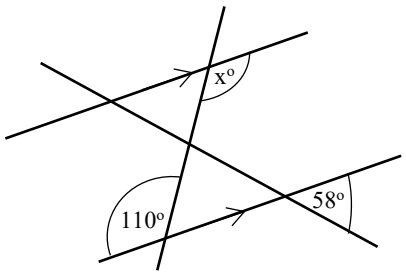
Dharana Siriwarnage, PGD (maths), BSc

9.



A, B and C are regular polygons and they are meeting at common vertex at P. A and B are regular hexagon and a regular dodecagon (12 – sided) respectively. What is the name of polygon C?
You have to show at the working.

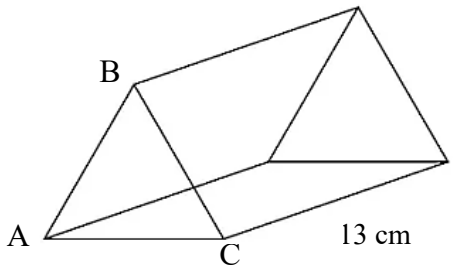
10.



Find the size of x^o.
Give all reasons for your answer.

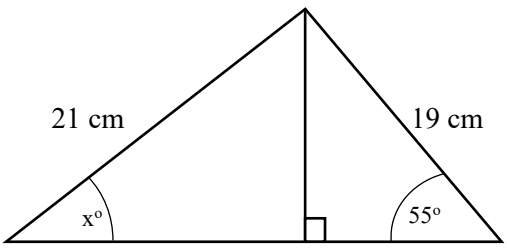
11. Work out $1.35 \times 10^7 + 2.9 \times 10^5$
Give the answer in standard form.

12.



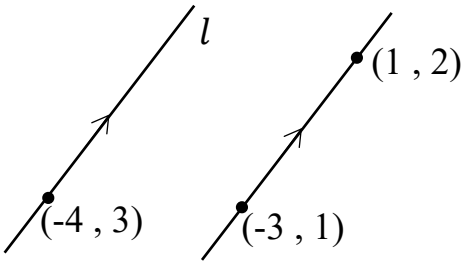
Cross – section of the triangular prism has ABC equilateral triangle.
$AB = BC = AC = 5cm$
Find the volume of the prism.

13.



Find the size of angle x^o.

14.



Find the equation of line l.