Year 08
Weekly Tutorial - 20

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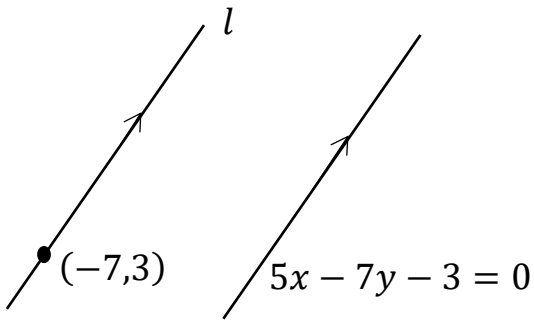
1. Expand and simplify, $-(3x+1)(x-4)(x+2)$

2. Solve, $\frac{3x+11}{-2} = \frac{2x-13}{4}$

3. Make t the subject, $s = \frac{17-3t}{9t-5}$

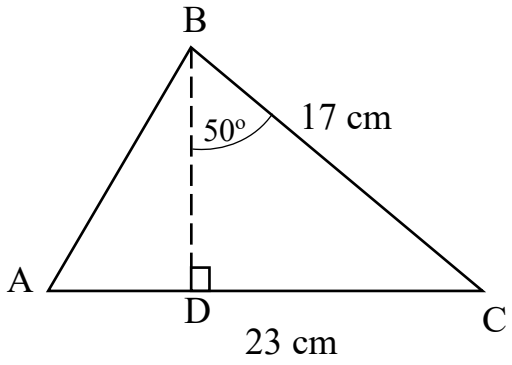
4.



Find the equation of line l , give the answer in the form $y = mx + c$

5. $A:B = 5:3$
$C:B = 4:5$
Find $A:B:C$.

6.



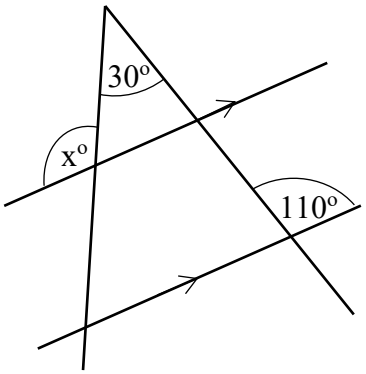
AC = 23 cm
BC = 17 cm
DBC ∢ = 50°

Find the area of the triangle ABC.

7. Solve by factorisation, $3x^2 + 7x - 6 = 0$

Dharana Siriwarnage, PGD (maths), BSc

8.



Find angle x^o.

9. £ 360 is shared between Abby, Ben, Chole and Denesh. The ratio of the amount Abby gets to the amount Ben gets is 3: 7. Chole and Denesh each gets 1.5 times the amount Abby gets.
Work out the amount of money that Ben gets.

$(GCSE/2019/Edexcel)$

10. Marie invests £ 8 000 in an account for one year. At the end of the year, interest is added to her account. Marie pays tax on this interest at a rate of 20%. She pays £ 28.80 tax.
Work out the percentage interest rate, for the account.

$(GCSE/2019/Edexcel)$

11. A number is increased by 12% and it is now 672. What is the number?

12. Calculate the following, giving your answers in standard form.

a) $3.15 \times 10^{-12} + 7.5 \times 10^{-10}$

b) $12.2 \times 10^{8} - 19.7 \times 10^{6}$

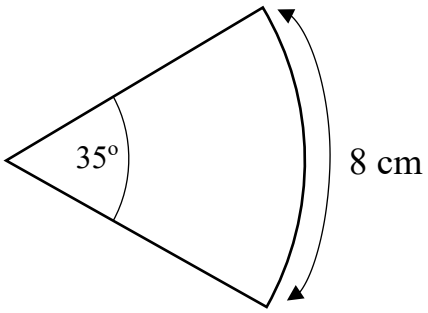
c) $4.5 \times 10^{5} \times 3.2 \times 10^{8}$

d) $5.7 \times 10^{-3} \times 8.1 \times 10^{5}$

13. Katy invests £ 200 000 in a saving account for 4 years. The account pays compound interest at a rate of 1.5% per annum. Calculate the total amount of interest Katy will get at the end of 4 years.

$(GCSE/2019/Edexcel)$

14.



Find the surface area of the sector correct to 1dp.