

Year 08 Weekly Tutorial - 16

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1. Simplify.

a) $(3x^2)^3 \times \left(\frac{x}{3}\right)^{-2}$

b) $\left(\frac{625x^4}{256y^{12}}\right)^{-\frac{3}{4}}$

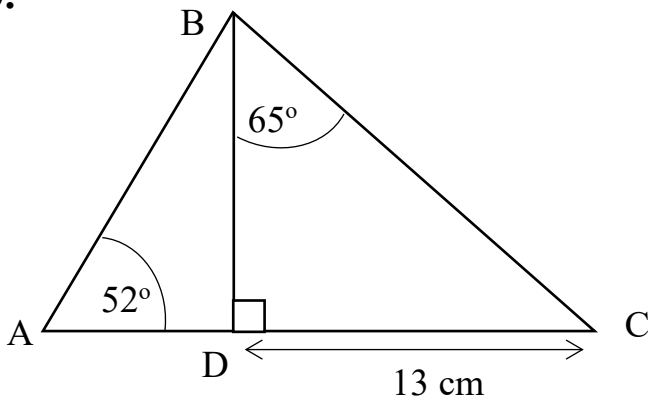
2. Factorize.

a) $x^2 - 8x - 65$

b) $x^2 - 81$

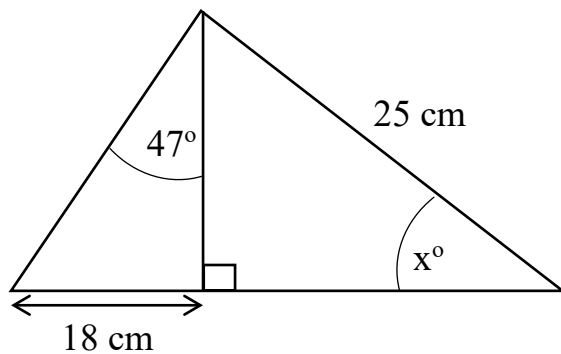
c) $5x^2 - 7x - 6$

3.



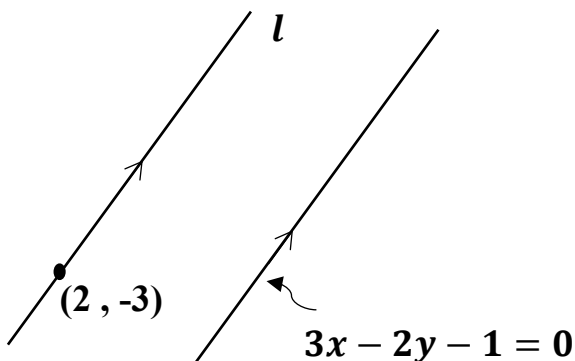
Find the AB length. (Give the answer correct to 1 dp)

4.



Find the x° .

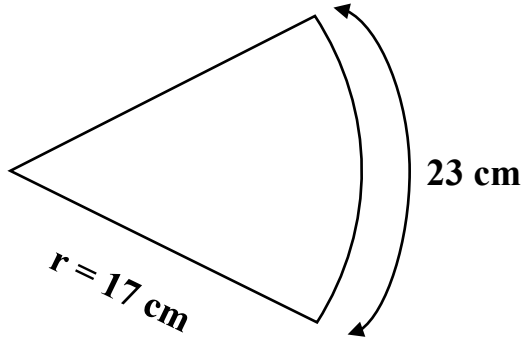
5.



Find the equation of line l .

6. Zack invested £ 7500 for 3 years in a savings account. He was paid 3.5% per annum compound interest.
How much money did Zack have in the account at the end of 3 years?

7.



Find the area of the sector.
(Give the answer correct to 1dp)

8. 30 passengers were asked how long they waited for the bus yesterday.

Waiting time (Minutes)	Frequency
5	12
8	8
11	7
14	3

What is the average waiting time?

9. The table below shows mass of 50 apples.

Mass (g)	Frequency
81 – 100	8
101 – 120	12
121 – 140	16
141 – 160	10
161 - 200	4

- a) Estimate the mean mass of an apple.
b) What is the modal mass of an apple?

- 10.** The frequency table shows information about the height of some 50 plants in a garden.

Height (h cm)	Frequency
$40 < h \leq 60$	13
$60 < h \leq 80$	12
$80 < h \leq 100$	8
$100 < h \leq 120$	7
$120 < h \leq 140$	10

- a) Write down the modal class interval.
b) Find the average height of a plant.