

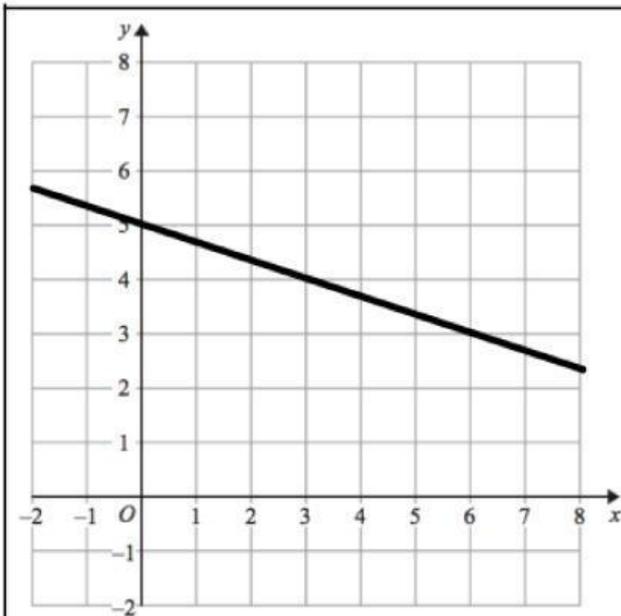
## CONSOLIDATE PRACTICE SHEET II

Work out

$$\left(\frac{8}{27}\right)^{\frac{2}{3}}$$

What is the value of  $n$

$$5^n = \frac{1}{125}$$



Line A is shown on the grid.

Find the equation of line A

Line B is parallel to Line A and passes through  $(9, 20)$ .

Find the equation of line B

Given that  $x : y = 5 : 11$

and  $y - x = 90$

Find the value of  $2x + y$

An online retailer normally sells clothes at 50% more than the cost price.  
In a sale the price of all clothes are reduced until they are only 5% more than the cost price.

By what percentage of the original selling price have the price of the clothes been reduced?

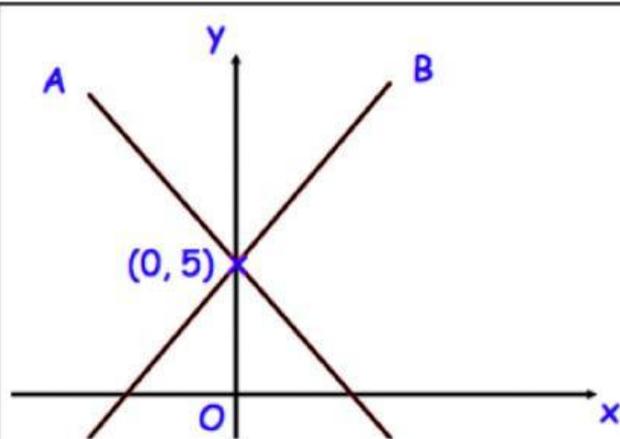
Given

$$f(x) = x + 3$$

$$g(x) = x^2$$

find

$$gf\left(-\frac{1}{2}\right)$$



The lines A and B are perpendicular.  
Both lines pass through the point (0, 5)  
The gradient of line A is  $-\frac{3}{4}$

Work out the gradient of line B.

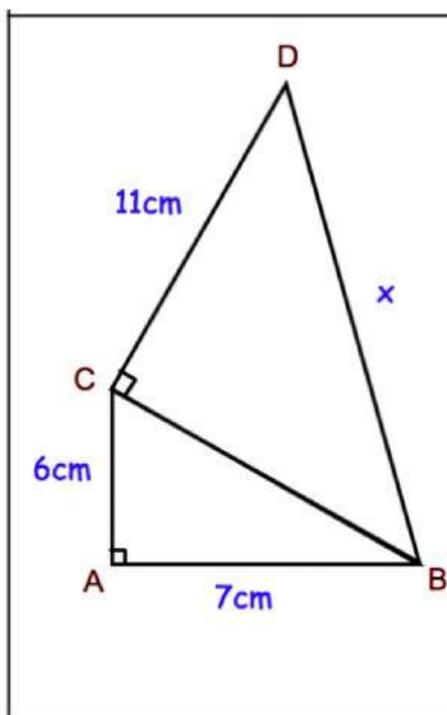
Write down the equation of line B

A particle travels for  
 $2 \times 10^3$  seconds, at a speed of  
 $5 \times 10^5$  m/s

How far does the particle travel, in  
kilometres?

Where does the line  $y - 2x = 9$  cross the x-axis?

Where does the line  $y - 2x = 9$  cross the y-axis?



Find the length of BD

Find the area of triangle BCD.

Given

$$f(x) = \frac{4x + 1}{7}$$

find

$$f^{-1}(x)$$

Work out

$$25^{-0.5}$$

Find the equation of the line that is perpendicular to  $3x + y = 8$  and passes through the point  $(1, 5)$

Simplify

$$(81x^8)^{-\frac{3}{4}}$$

Given that

$$16^x = 4^{10-x}$$

Find the value of  $x$

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Solve  $\frac{4x}{3} - 7 < 11$

Write down the largest integer that satisfies  $\frac{10 - 4x}{7} > 5$

