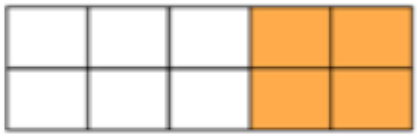
March 31st	5-a-day	Numeracy

What fraction of this shape is shaded? Give your answer in it's simplest form.



$\frac{4}{10} = \frac{2}{5}$

Name this solid

Cylinder

37 x 18

$$\begin{array}{r} 37 \\ \times\ 18 \\ \hline 296 \\ 370 \\ \hline 666 \end{array}$$

2837 + 829

$$\begin{array}{r} 2837 \\ +\ 829 \\ \hline 3666 \end{array}$$

Solve x + 5 = 12

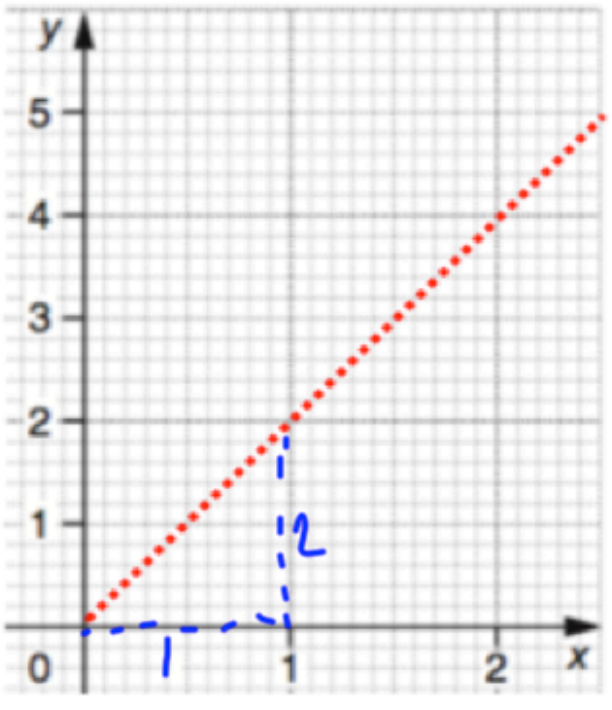
$x = 7$

Solve 3x = 24

$x = 8$

Expand 5(x + 4)

$5x + 20$

March 31st	5-a-day	Foundation
Work out $\frac{9}{10} \times \frac{1}{3}$ $\frac{9}{30} = \frac{3}{10}$ Give you answer in its simplest form		
Work out the area of a rectangle with length 6cm and width 2cm.	The rectangle is enlarged by scale factor two. Write down the length and width of the enlarged rectangle. 12cm & 4cm.	
How many times larger is the area of the enlarged rectangle than the area of the original rectangle? $6 \times 2 = 12$ $12 \times 4 = 48$	4 times larger.	
What is the gradient of the red line? $2 \div 1 = 2$.		
What is the equation of the red line? $y = 2x$		

March 31st	5-a-day	Higher

Circle the values which are rational

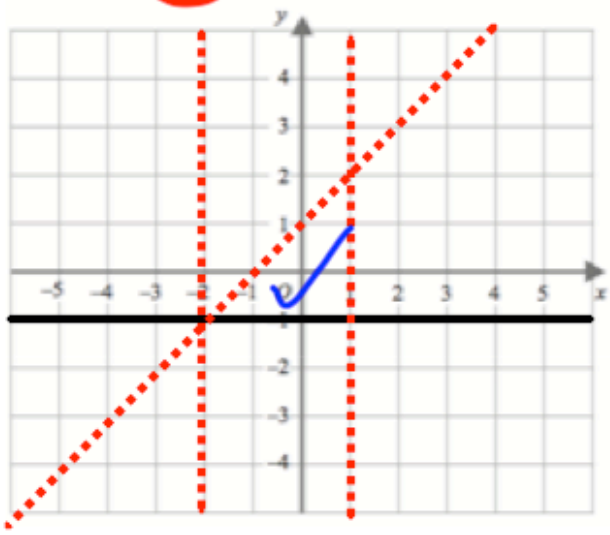
4^0 $\sqrt{64}$ $\sqrt{3}$ $100^{0.5}$ π

Solve

$5 < 2x + 1 < 17$

$4 < 2x < 16$

$2 < x < 8$



Show the region which satisfies

$-2 < x < 1$
$y \geq -1$
$y < x + 1$

Every time a ball bounces of a surface, it rises to $^4/_5$ of the previous height.

A ball is dropped from 5 metres and it allows to bounce freely.

What is the smallest number of bounces until its rebound height is less than 3 metres?

5×0.8^t

$5 \times 0.8^2 = 3.2m$

$5 \times 0.8^3 = 2.56m$

3 bounces.

Simplify

$$\frac{n^2-1}{n+1} \times \frac{2}{n-2}$$

$\frac{(n-1)(n+1)}{n+1} \times \frac{2}{n-2} = \frac{2(n-1)(n+1)}{(n+1)(n-2)}$

$\frac{2(n-1)}{n-2}$