
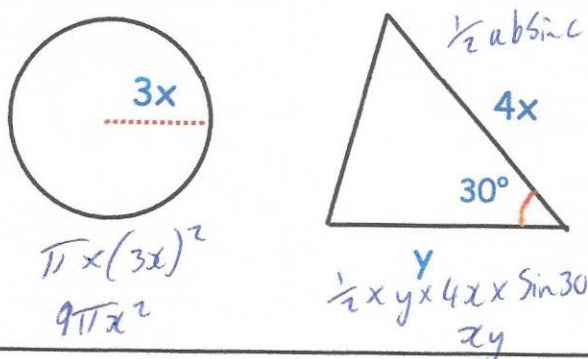


5th February		 Corbettmaths
Make w the subject $g = \frac{w}{w-5}$ $g(w-5) = w$ $gw - 5g = w$	$gw - w = 5g$ $w(g-1) = 5g$ $w = \frac{5g}{g-1}$	
4 blue socks and 6 black socks are in a drawer. Keith takes out two socks at random. Work out the probability that Keith takes out two socks of the <u>same</u> colour.	$P(2 \text{ blues}) = \frac{4}{10} \times \frac{3}{9} = \frac{12}{90}$ $P(2 \text{ black}) = \frac{6}{10} \times \frac{5}{9} = \frac{30}{90}$ $\frac{42}{90} = \frac{7}{15}$	
Given $f(x) = \frac{8x-1}{5}$ find $f^{-1}(x)$	$y = \frac{8x-1}{5}$ $5y = 8x-1$ $5y+1 = 8x$ $x = \frac{5y+1}{8}$	$f^{-1}(x) = \frac{5x+1}{8}$
 <p> $\pi \times (3x)^2$ $9\pi x^2$ </p> <p> $\frac{1}{2} ab \sin c$ $\frac{1}{2} \times y \times 4x \times \sin 30$ xy </p>	The areas of the circle and triangle are equal. Express y in terms of x . $xy = 9\pi x^2$ $y = 9\pi x$	
Find the reciprocal of $1.2\bar{3}\bar{5}$ $x = 1.2353535\dots$ $10x = 12.353535\dots$ $1000x = 1235.3535\dots$ $990x = 1223$	$x = \frac{1223}{990}$	reciprocal of $x = \frac{990}{1223}$