

Make w the subject

$$g = \frac{w}{w-5} \quad g(w-5) = w$$

$$gw - 5g = w$$

$$gw - w = 5g$$

$$w(g-1) = 5g$$

$$w = \frac{5g}{g-1}$$

Find the reciprocal of 1.223

$$x = 1.223535\dots$$

$$10x = 12.23535\dots$$

$$1000x = 1235.3535\dots$$

$$990x = 1223$$

$$x = \frac{1223}{990}$$

$$\text{reciprocal} = \frac{990}{1223}$$

Given

$$f(x) = \frac{8x-1}{5} \quad y = \frac{8x-1}{5}$$

find

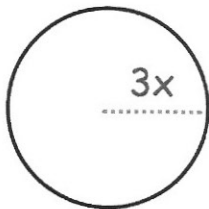
$$f^{-1}(x)$$

$$5y = 8x - 1$$

$$5y + 1 = 8x$$

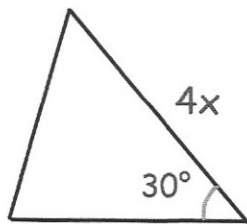
$$x = \frac{5y+1}{8}$$

$$f^{-1}(x) = \frac{5x+1}{8}$$



$$\pi \times (3x)^2$$

$$= 9\pi x^2$$



$$\frac{1}{2} (4x)y \sin 30 = xy$$

The areas of the circle and triangle are equal.

Express y in terms of x .

$$xy = 9\pi x^2$$

$$y = 9\pi x$$

In a crate, containing only red and green apples, the ratio of green to red apples is 2:1

An apple is picked at random and removed from the crate.

A second apple is then picked at random.

$$\text{if 3 apples: } P(GG) = \frac{2}{3} \times \frac{1}{2} = \frac{1}{3}$$

The probability of picking two green apples is y .

Find the error interval for y .

$$\frac{1}{3} \leq y < \frac{4}{9}$$

$$\text{if very large number of apples } P(GG) \rightarrow \frac{4}{9}$$