



Prove the product of two even numbers is always even

$$(2m) \times (2n)$$

$$= 4mn$$

$$2(2mn) \therefore \text{even}$$

Given

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

find

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

$$7y = 4x+1$$

$$7y-1 = 4x$$

$$x = \frac{7y-1}{4}$$

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

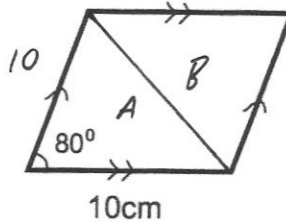
Shown is a rhombus

Calculate its area

$$A: \frac{1}{2} \times 10 \times 10 \times \sin 80^\circ$$

$$= 49.2404 \text{ cm}^2$$

$$2 \times 49.2404 =$$



$$98.48 \text{ cm}^2$$

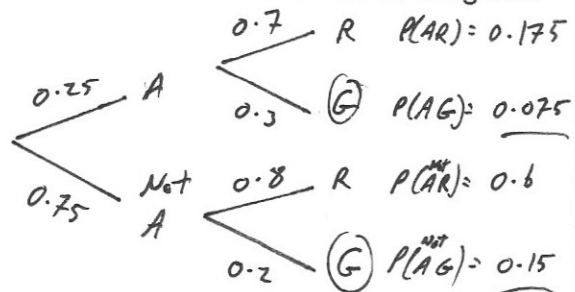
Olivia has a fair 4 sided dice and two boxes of sweets.

The dice is labelled A, B, C and D.
Box 1 contains 7 red and 3 green sweets.
Box 2 contains 1 green and 4 red sweets.

Olivia rolls the dice and if she gets an A, she picks a sweet at random from Bag 1.

If she rolls a B, C or D, then Olivia picks a sweet at random from Bag 2.

Show this information on a tree diagram.



Olivia rolls the dice and picks a sweet at random. Olivia obtained a green sweet.

Find the probability that Olivia rolled an A on the dice.

$$\frac{0.075}{0.075 + 0.15} = \frac{1}{3}$$