



Expand and simplify

$$(x+3)(x+2)(x+1)$$

$$(x^2 + 2x + 3x + 6)(x+1)$$

$$(x^2 + 5x + 6)(x+1)$$

$$x^3 + x^2 + 5x^2 + 5x + 6x + 6$$

$$x^3 + 6x^2 + 11x + 6$$

Jenna asked 50 people which drink they liked from hot chocolate, tea and coffee.

37 people liked at least one of the drinks

7 people liked all three drinks

5 people liked tea and hot chocolate but not coffee.

36 people liked coffee or hot chocolate (or both).

29 people liked tea or coffee (or both).

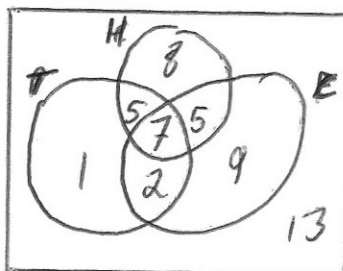
25 people liked hot chocolate.

23 people liked coffee.

9 people only liked coffee

Jenna picks one person at random from the 50 people.

Work out the probability that this person likes tea.



$$\frac{15}{50} = \frac{3}{10}$$

Given that the person selected likes tea, find the probability that this person does not like coffee or hot chocolate.

$$\frac{1}{15}$$

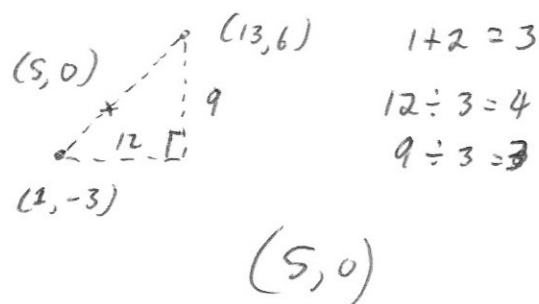
ABC is a straight line.

A has coordinates (1, -3)

C has coordinates (13, 6)

AB:BC is 1:2

Find the coordinates of point B



$$1+2=3$$

$$12 \div 3 = 4$$

$$9 \div 3 = 3$$

$$(5, 0)$$

Convert 0.4515151... to a fraction.

Give your answer in its simplest form.

$$x = 0.4515151\dots$$

$$10x = 4.515151\dots$$

$$1000x = 451.515151\dots$$

$$990x = 447$$

$$x = \frac{447}{990} = \frac{149}{330}$$