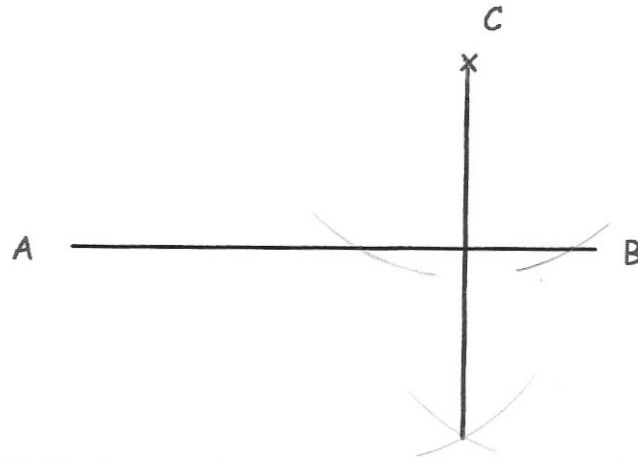




Use a ruler and compasses to construct the perpendicular from the line segment AB to the point C.



Expand and simplify

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

$$(x+3)(x+3) + (x-1)(x-1)$$

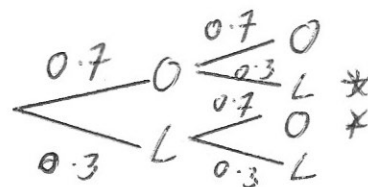
$$x^2 + 3x + 3x + 9 + x^2 - x - x + 1$$

$$2x^2 + 4x + 10$$

The probability that a train arrives late is 0.3

Arlo is travelling by train on Saturday and Sunday.

Show this information on a probability tree diagram.



Calculate the probability the train is on time both days.

$$0.7 \times 0.7 = 0.49$$

Calculate the probability the train is late one exactly one day.

$$\begin{aligned} 0.7 \times 0.3 &= 0.21 \\ + 0.3 \times 0.7 &= 0.21 \\ \hline &0.42 \end{aligned}$$