

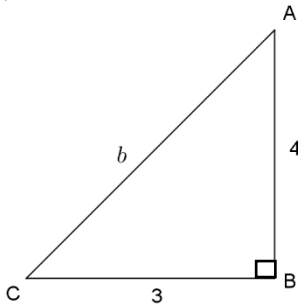
Stelling van Pythagoras

Werkkaart 2: Memo

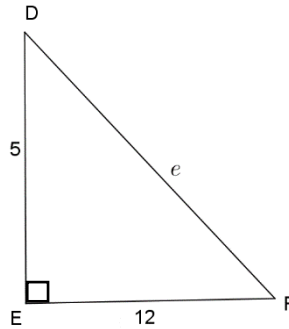
Oefening:

- 1) Bereken die lengtes van die onbekende sye. Rond jou antwoorde tot twee desimale plekke af, indien nodig.

a)



b)



a) $b^2 = 3^2 + 4^2$ Pyth

$$b^2 = 9 + 16$$

$$b^2 = 25$$

$$\sqrt{b^2} = \sqrt{25}$$

$$b = 5$$

b) $e^2 = 5^2 + 12^2$ Pyth

$$e^2 = 25 + 144$$

$$e^2 = 169$$

$$\sqrt{e^2} = \sqrt{169}$$

$$e = 13$$

- 2) In $\triangle RTN$ is $\hat{N} = 90^\circ$

a) Vind n as $r = 7\text{cm}$ en $t = 24\text{cm}$

b) Vind r as $n = 29\text{m}$ en $t = 20\text{m}$

c) Vind t as $n = 13\text{mm}$ en $r = 5\text{mm}$

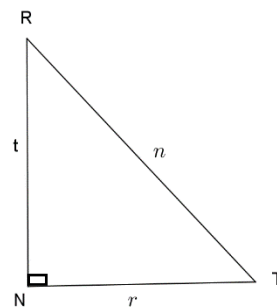
a) $n^2 = r^2 + t^2$ Pyth

$$n^2 = 7^2 + 24^2$$

$$n^2 = 49 + 576$$

$$\sqrt{n^2} = \sqrt{625}$$

$$n = 25\text{cm}$$



b) $r^2 = n^2 - t^2$ Pyth

$$r^2 = 29^2 - 20^2$$

$$r^2 = 841 - 400$$

$$\sqrt{r^2} = \sqrt{441}$$

$$r = 21m$$

c) $t^2 = n^2 - r^2$ Pyth

$$t^2 = 13^2 - 5^2$$

$$t^2 = 169 - 25$$

$$\sqrt{t^2} = \sqrt{144}$$

$$t = 12mm$$

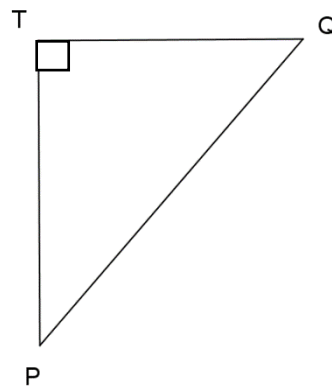
3) ΔPQT is 'n reghoekige driehoek met $T = 90^\circ$

a) Vind PQ as $PT = 9cm$ en $TQ = 40cm$

b) Vind q as $t = 37m$ en $p = 35m$

c) Vind p as $q = 5cm$ en $t = 8cm$

d) Vind t as $p = 7cm$ en $q = 11cm$



a) $PQ^2 = PT^2 + TQ^2$ Pyth

$$PQ^2 = 9^2 + 40^2$$

$$PQ^2 = 81 + 1600$$

$$\sqrt{PQ^2} = \sqrt{1681}$$

$$PQ = 41cm$$

b) $q^2 = t^2 - p^2$ Pyth

$$q^2 = 37^2 - 35^2$$

$$q^2 = 1369 - 1225$$

$$\sqrt{q^2} = \sqrt{144}$$

$$q = 12m$$

c) $p^2 = t^2 - q^2$ Pyth

$$p^2 = 8^2 - 5^2$$

$$p^2 = 64 - 25$$

$$\sqrt{p^2} = \sqrt{39}$$

$$p = 6,24cm$$

d) $t^2 = p^2 + q^2$ Pyth

$$t^2 = 7^2 + 11^2$$

$$t^2 = 49 + 121$$

$$\sqrt{t^2} = \sqrt{170}$$

$$t = 13,03mm$$