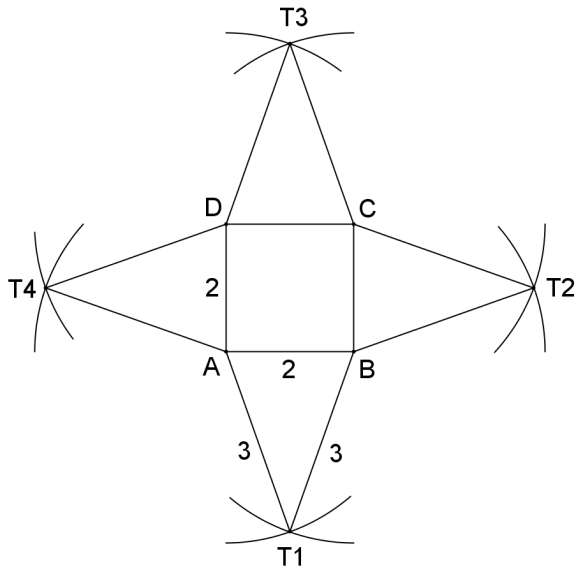
## 2.2 Uitslagen

**Opgave 15:**
figuur a , figuur b en figuur d

**Opgave 16:**
figuur a , figuur b en figuur d

**Opgave 17:**




**Opgave 18:**

a. $\frac{EF}{AB} = \frac{ET}{AT}$

$\frac{2}{4} = \frac{x}{x+3}$

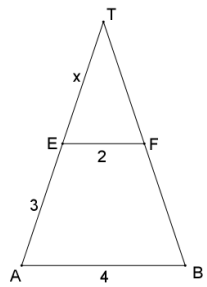
$2(x+3) = 4x$

$2x + 6 = 4x$

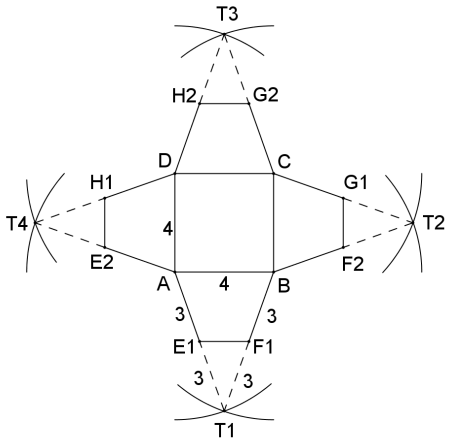
$-2x = -6$

$x = 3$

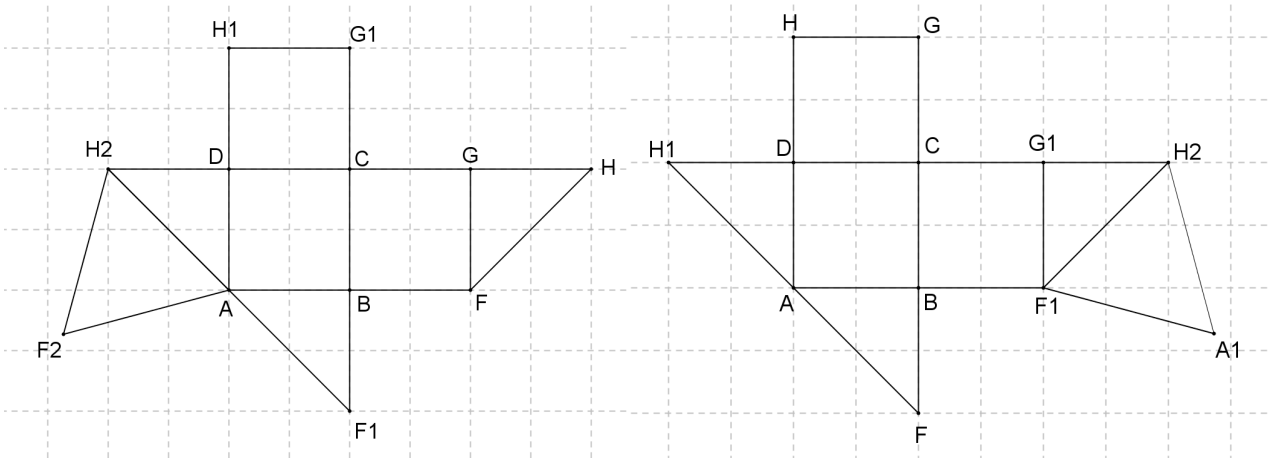
dus $AT = 6$



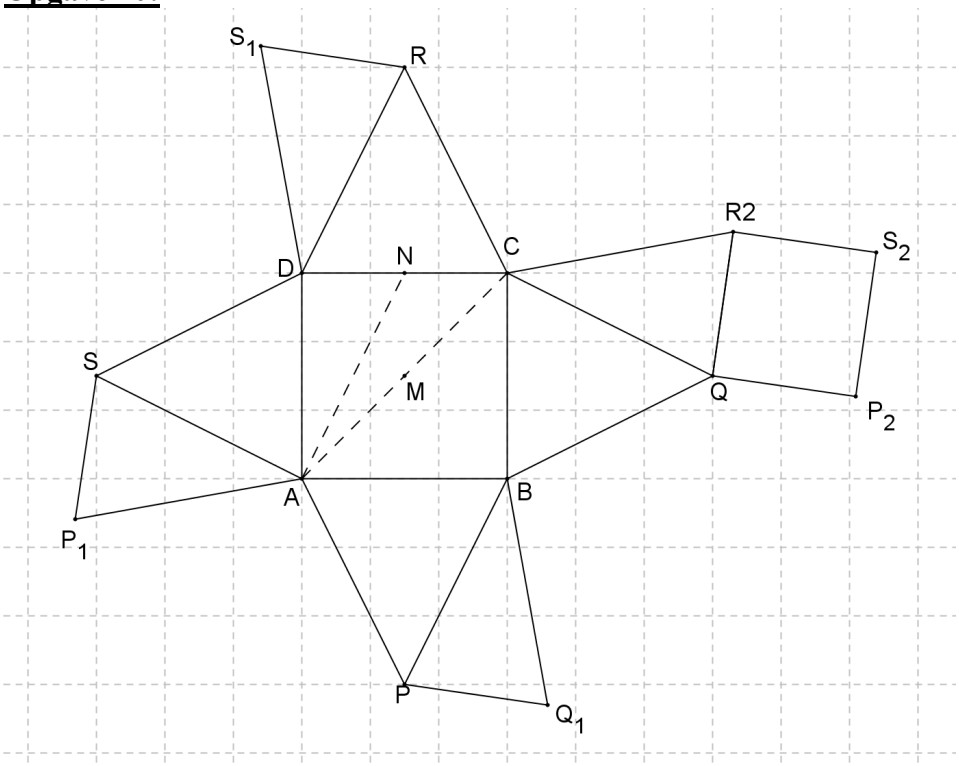

b.



**Opgave 19:**




**Opgave 20:**




$AP = BP = BQ = CQ = CR = DR = DS = AS = AN$

$PQ = QR = RS = PS = \frac{1}{2}AC = AM$

**Opgave 21:**

Figuur b, de lengte van de rechthoek is gelijk aan de omtrek van de cirkel.

**Opgave 22:**

a. lengte cirkelboog $= \dfrac{90}{360} \cdot 2 \cdot \pi \cdot 3 = 1\frac{1}{2}\pi$

omtrek grondcirkel kegel $= 2\pi r = 1\frac{1}{2}\pi$

$r = \dfrac{1\frac{1}{2}\pi}{2\pi} = \frac{3}{4}$ cm

b. lengte cirkelboog $= \frac{210}{360} \cdot 2 \cdot \pi \cdot 2{,}5 = 2\frac{11}{12}\pi$

omtrek grondcirkel kegel $= 2\pi r = 2\frac{11}{12}\pi$

$r = \frac{2\frac{11}{12}\pi}{2\pi} = 1\frac{11}{24}$ cm

c. lengte cirkelboog $= \frac{300}{360} \cdot 2 \cdot \pi \cdot 2 = 3\frac{1}{3}\pi$

omtrek grondcirkel kegel $= 2\pi r = 3\frac{1}{3}\pi$

$r = \frac{3\frac{1}{3}\pi}{2\pi} = 1\frac{2}{3}$ cm

**<u>Opgave 23:</u>**

lengte cirkelboog $= \frac{p}{360} \cdot 2\pi R = \frac{p}{180 \cdot \pi R}$

omtrek cirkelboog $= 2\pi r = \frac{p}{180} \cdot \pi R$

$r = \frac{p}{360} \cdot R$

**<u>Opgave 24:</u>**

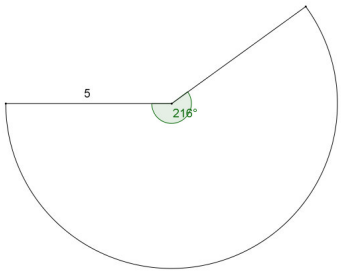
$\frac{p}{360} \cdot R = r$

$\frac{p}{360} \cdot 5 = 3$

$p = \frac{3 \cdot 360}{5} = 216°$

**<u>Opgave 25:</u>**

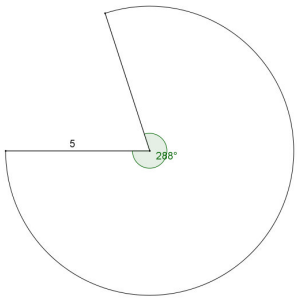
a. zie opgave 24 dus $p = 216°$




b. $R = \sqrt{4^2 + 3^2} = \sqrt{25} = 5$

$\frac{p}{360} \cdot 5 = 4$

$p = \frac{4 \cdot 360}{5} = 288°$

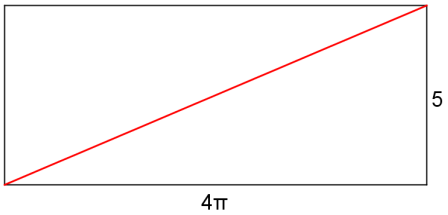


**Opgave 26:**

a. lengte $= 2 \cdot \pi \cdot 2 = 4\pi$ cm

breedte $= 5$ cm

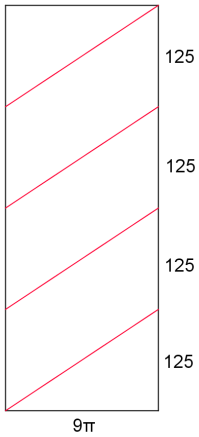
b.




c. lengte $= \sqrt{(4\pi)^2 + 5^2} = 13{,}5$ cm

**Opgave 27:**

$r = 4{,}5$ cm

omtrek vlaggenmast $= 2 \cdot \pi \cdot 4{,}5 = 9\pi$ cm

lengte touw $= 4 \cdot \sqrt{125^2 + (9\pi)^2} = 513$ cm