

(C2-6.4a) Name:

Homework Questions 4 – Area of a Segment

1. Calculate the area of the segment, given your answer correct to 2 dp

a) $r = 8\text{m}$, $\theta = \frac{5\pi}{4}$

$$A = 148.33 \text{ m}^2$$

b) $r = 9\text{m}$, $\theta = \frac{11\pi}{3}$

$$A = 501.6 \text{ m}^2$$

c) $r = 112\text{cm}$, $\theta = 17.4 \text{ rads}$

$$A = 115358.76 \text{ cm}^2$$

d) $r = 18.5\text{cm}$, $\theta = \frac{7\pi}{12}$

$$A = 148.31 \text{ cm}^2$$

e) $r = 16.2\text{m}$, $\theta = 10.1 \text{ rads}^\circ$

$$A = 1407.34 \text{ m}^2$$

f) $r = 27.6\text{cm}$, $\theta = \frac{13\pi}{25}$

$$A = 242.09 \text{ cm}^2$$