

Algebra 3 Assignment # 2

(1) $\cot(\theta) = -2$, $270^\circ < \theta < 360^\circ$. Find the remaining 5 trig. functions of θ .

(2) $\sin(\theta) = -\frac{24}{25}$, $180^\circ < \theta < 270^\circ$. Find the remaining 5 trig. functions of θ .

(3) Find the values of the six trig. functions of θ , if θ is an angle in standard position with the point $(4, -3)$ on its terminal ray.

(4) Find the values of the six trig. functions of θ , if θ is an angle in standard position with the point $(-5, 12)$ on its terminal ray.

(5) Find the values of the six trig. functions of θ , if θ is an angle in standard position with the point $(0, -\sqrt{3})$ on its terminal ray.

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Answers

$$(1) \sin(\theta) = -\frac{1}{\sqrt{5}}, \cos(\theta) = \frac{2}{\sqrt{5}}, \tan(\theta) = -\frac{1}{2}, \sec(\theta) = \frac{\sqrt{5}}{2}, \csc(\theta) = -\sqrt{5}$$

$$(2) \cos(\theta) = -\frac{7}{25}, \tan(\theta) = \frac{24}{7}, \cot(\theta) = \frac{7}{24}, \sec(\theta) = -\frac{25}{7}, \csc(\theta) = -\frac{25}{24}$$

$$(3) \sin(\theta) = -\frac{3}{5}, \cos(\theta) = \frac{4}{5}, \tan(\theta) = -\frac{3}{4}, \cot(\theta) = -\frac{4}{3}, \sec(\theta) = \frac{5}{4}, \csc(\theta) = -\frac{5}{3}$$

$$(4) \sin(\theta) = \frac{12}{13}, \cos(\theta) = -\frac{5}{13}, \tan(\theta) = -\frac{12}{5}, \cot(\theta) = -\frac{5}{12}, \sec(\theta) = -\frac{13}{5}, \csc(\theta) = \frac{13}{12}$$

$$(5) \sin(\theta) = -1, \cos(\theta) = 0, \tan(\theta) \text{ is undefined}, \cot(\theta) = 0, \sec(\theta) \text{ is undefined}, \\ \csc(\theta) = -1$$