

Day 4 Trig. of any angle Practice

Date _____

Period _____

Find the exact values of the five trigonometric ratios not given.

1) $\tan \theta = -\frac{8}{15}$ and $\cos \theta > 0$

2) $\sin \theta = -\frac{1}{2}$ and $\cos \theta < 0$

3) $\csc \theta = -\sqrt{10}$ and $\cos \theta < 0$

4) $\sin \theta = \frac{3}{5}$ and $\cos \theta < 0$

5) $\sec \theta = -\frac{\sqrt{13}}{2}$ and $\sin \theta > 0$

6) $\sin \theta = \frac{8\sqrt{3}}{19}$ and $\cos \theta > 0$

7) $\tan \theta = \frac{1}{3}$ and $\sin \theta < 0$

8) $\sec \theta = \frac{5}{3}$ and $\sin \theta > 0$

9) $\sec \theta = \frac{4\sqrt{7}}{7}$ and $\sin \theta > 0$

10) $\cos \theta = -\frac{24}{25}$ and $\sin \theta < 0$

Day 4 Trig. of any angle Practice

Date _____

Period _____

Find the exact values of the five trigonometric ratios not given.

1) $\tan \theta = -\frac{8}{15}$ and $\cos \theta > 0$

$$\sin \theta = -\frac{8}{17}, \cos \theta = \frac{15}{17}$$

$$\csc \theta = -\frac{17}{8}, \sec \theta = \frac{17}{15}, \cot \theta = -\frac{15}{8}$$

2) $\sin \theta = -\frac{1}{2}$ and $\cos \theta < 0$

$$\cos \theta = -\frac{\sqrt{3}}{2}, \tan \theta = \frac{\sqrt{3}}{3}$$

$$\csc \theta = -2, \sec \theta = -\frac{2\sqrt{3}}{3}, \cot \theta = \sqrt{3}$$

3) $\csc \theta = -\sqrt{10}$ and $\cos \theta < 0$

$$\sin \theta = -\frac{\sqrt{10}}{10}, \cos \theta = -\frac{3\sqrt{10}}{10}, \tan \theta = \frac{1}{3}$$

$$\sec \theta = -\frac{\sqrt{10}}{3}, \cot \theta = 3$$

4) $\sin \theta = \frac{3}{5}$ and $\cos \theta < 0$

$$\cos \theta = -\frac{4}{5}, \tan \theta = -\frac{3}{4}$$

$$\csc \theta = \frac{5}{3}, \sec \theta = -\frac{5}{4}, \cot \theta = -\frac{4}{3}$$

5) $\sec \theta = -\frac{\sqrt{13}}{2}$ and $\sin \theta > 0$

$$\sin \theta = \frac{3\sqrt{13}}{13}, \cos \theta = -\frac{2\sqrt{13}}{13}, \tan \theta = -\frac{3}{2}$$

$$\csc \theta = \frac{\sqrt{13}}{3}, \cot \theta = -\frac{2}{3}$$

6) $\sin \theta = \frac{8\sqrt{3}}{19}$ and $\cos \theta > 0$

$$\cos \theta = \frac{13}{19}, \tan \theta = \frac{8\sqrt{3}}{13}$$

$$\csc \theta = \frac{19\sqrt{3}}{24}, \sec \theta = \frac{19}{13}, \cot \theta = \frac{13\sqrt{3}}{24}$$

7) $\tan \theta = \frac{1}{3}$ and $\sin \theta < 0$

$$\sin \theta = -\frac{\sqrt{10}}{10}, \cos \theta = -\frac{3\sqrt{10}}{10}$$

$$\csc \theta = -\sqrt{10}, \sec \theta = -\frac{\sqrt{10}}{3}, \cot \theta = 3$$

8) $\sec \theta = \frac{5}{3}$ and $\sin \theta > 0$

$$\sin \theta = \frac{4}{5}, \cos \theta = \frac{3}{5}, \tan \theta = \frac{4}{3}$$

$$\csc \theta = \frac{5}{4}, \cot \theta = \frac{3}{4}$$

9) $\sec \theta = \frac{4\sqrt{7}}{7}$ and $\sin \theta > 0$

$$\sin \theta = \frac{3}{4}, \cos \theta = \frac{\sqrt{7}}{4}, \tan \theta = \frac{3\sqrt{7}}{7}$$

$$\csc \theta = \frac{4}{3}, \cot \theta = \frac{\sqrt{7}}{3}$$

10) $\cos \theta = -\frac{24}{25}$ and $\sin \theta < 0$

$$\sin \theta = -\frac{7}{25}, \tan \theta = \frac{7}{24}$$

$$\csc \theta = -\frac{25}{7}, \sec \theta = -\frac{25}{24}, \cot \theta = \frac{24}{7}$$