Precalculus: Trigonometric Functions

Name _____ **Date** _____

Calculate the sine of an angle given the cosine and the quadrant or vice-versa

(1) $\cos\theta = \frac{28}{53},\ \theta \in \text{I}$

(2) $\cos\theta = \frac{77}{85},\ \theta \in \text{I}$

(3) $\cos\theta = -\frac{13}{85},\ \theta \in \text{III}$

(4) $\cos\theta = \frac{3}{5},\ \theta \in \text{I}$

(5) $\cos\theta = -\frac{28}{53},\ \theta \in \text{II}$

(6) $\cos\theta = -\frac{12}{13},\ \theta \in \text{III}$

(7) $\sin\theta = -\frac{4}{5},\ \theta \in \text{IV}$

(8) $\cos\theta = \frac{9}{41},\ \theta \in \text{I}$

(9) $\sin\theta = -\frac{15}{17},\ \theta \in \text{IV}$

(10) $\sin\theta = \frac{80}{89},\ \theta \in \text{II}$

(11) $\sin\theta = -\frac{20}{29},\ \theta \in \text{IV}$

(12) $\sin\theta = -\frac{144}{145},\ \theta \in \text{IV}$

Answers

Calculate the sine of an angle given the cosine and the quadrant or vice-versa

(1) $\cos\theta = \frac{28}{53},\ \theta \in \text{I}$

$\sin\theta = \frac{45}{53}$

(2) $\cos\theta = \frac{77}{85},\ \theta \in \text{I}$

$\sin\theta = \frac{36}{85}$

(3) $\cos\theta = -\frac{13}{85},\ \theta \in \text{III}$

$\sin\theta = -\frac{84}{85}$

(4) $\cos\theta = \frac{3}{5},\ \theta \in \text{I}$

$\sin\theta = \frac{4}{5}$

(5) $\cos\theta = -\frac{28}{53},\ \theta \in \text{II}$

$\sin\theta = \frac{45}{53}$

(6) $\cos\theta = -\frac{12}{13},\ \theta \in \text{III}$

$\sin\theta = -\frac{5}{13}$

(7) $\sin\theta = -\frac{4}{5},\ \theta \in \text{IV}$

$\cos\theta = \frac{3}{5}$

(8) $\cos\theta = \frac{9}{41},\ \theta \in \text{I}$

$\sin\theta = \frac{40}{41}$

(9) $\sin\theta = -\frac{15}{17},\ \theta \in \text{IV}$

$\cos\theta = \frac{8}{17}$

(10) $\sin\theta = \frac{80}{89},\ \theta \in \text{II}$

$\cos\theta = -\frac{39}{89}$

(11) $\sin\theta = -\frac{20}{29},\ \theta \in \text{IV}$

$\cos\theta = \frac{21}{29}$

(12) $\sin\theta = -\frac{144}{145},\ \theta \in \text{IV}$

$\cos\theta = \frac{17}{145}$