WARM UP - NO CALCULATOR

Simplify.

1) $\dfrac{\frac{3}{2}}{\frac{15}{26}}$ $\frac{3}{2}\cdot\frac{26}{15}=\frac{13}{5}$

2) $\dfrac{\frac{2x}{14}}{\frac{24x}{49}}$ $\frac{2x}{14}\cdot\frac{49}{24x}=\frac{7}{24}$

5) Solve. $\dfrac{45}{x}=3$ $\cdot x$

$45=3x$

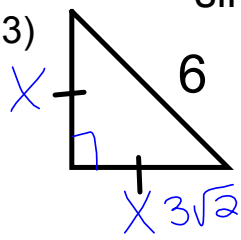
$x=15$

$3\cdot\frac{x}{3}=4\cdot3$

$x=12$

Use Pythagorean Theorem to find the lengths, in simplest radical form.

3)



$6^2=x^2+x^2$

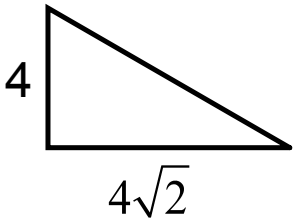
$36=2x^2$

$18=x^2$

$x=\sqrt{9\cdot2}$

$x=3\sqrt{2}$

4)



$c^2=4^2+(4\sqrt{2})^2$

$(4\sqrt{2})^2$

$16\cdot2=32$

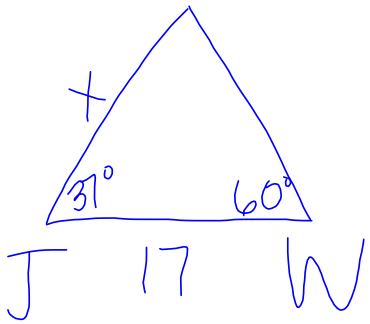
$c^2=16+32$

$c^2=48$

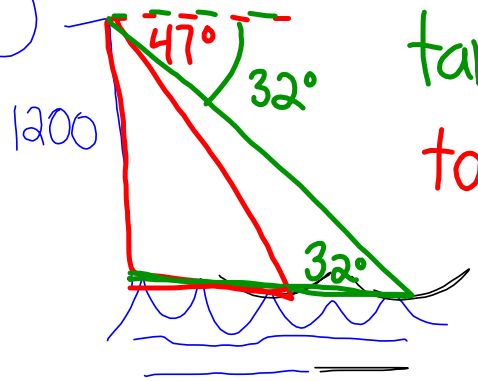
$c=\sqrt{16\cdot3}$

$c=4\sqrt{3}$

7



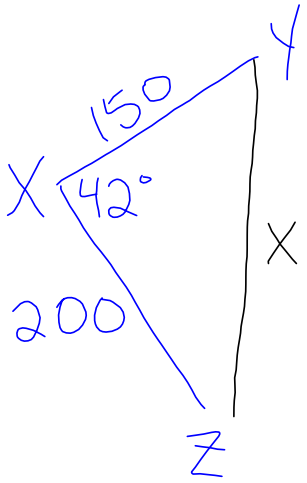
9



$\tan 32 = \frac{1200}{x}$ 1920

$\tan 47 = \frac{1200}{x}$ 1119

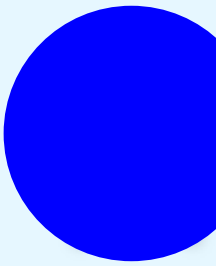
14



$X^2 = 150^2 + 200^2 - 2(150)(200)\cos 42$

Trigonometry Unit

13.2 Angles and the Unit Circle

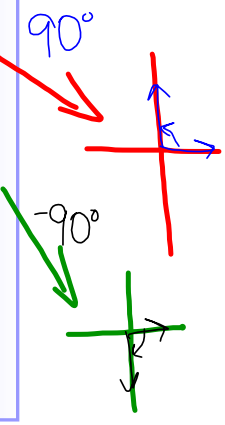


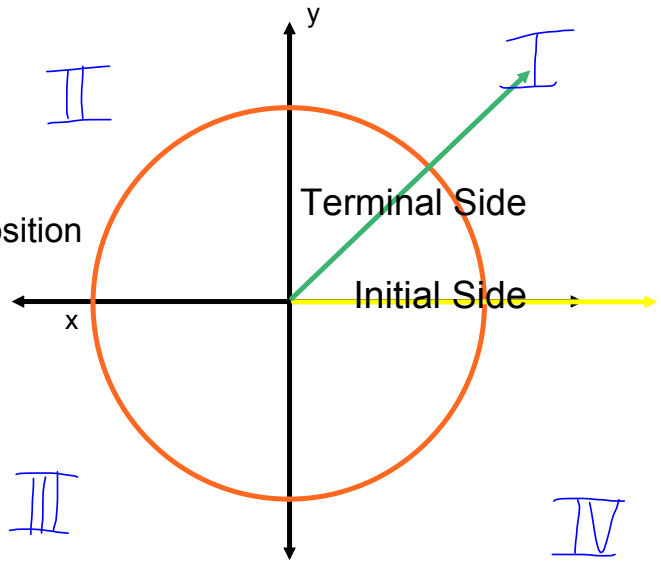
The Unit Circle

Positive Angles
counter clockwise
Negative Angles
clockwise

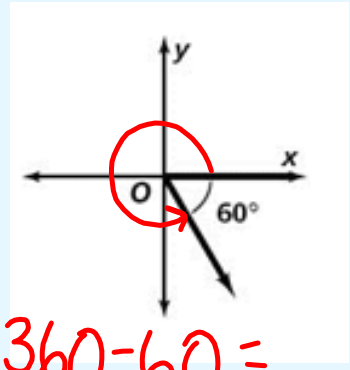
Quadrants

Standard Position

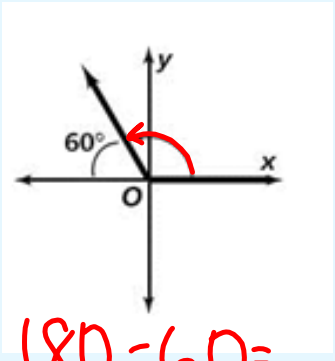




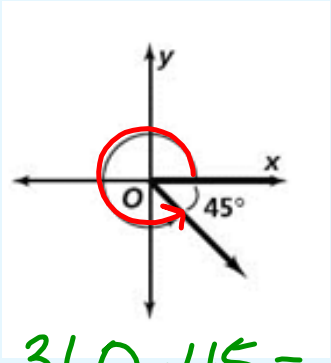
Find the measure of each angle in standard position.



360-60=
300°



180-60=
120°

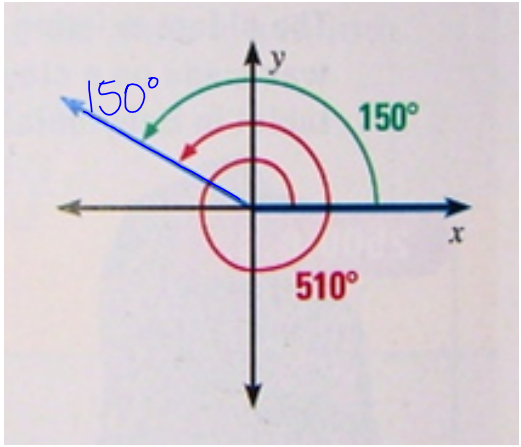


360-45=
315°

Coterminal Angles

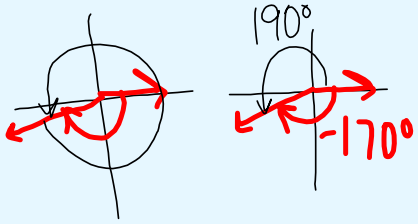
-two angles in standard position with the same terminal side

$$\begin{array}{r} 150 \\ +360 \\ \hline 510 \end{array}$$



Find the measure of an angle between 0° and 360° coterminal with each given angle.

-170°	260° 25° 140° 16°



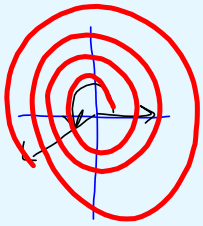
Pull

Find a positive and negative coterminal angle for each.

-125^o

235°

-485°

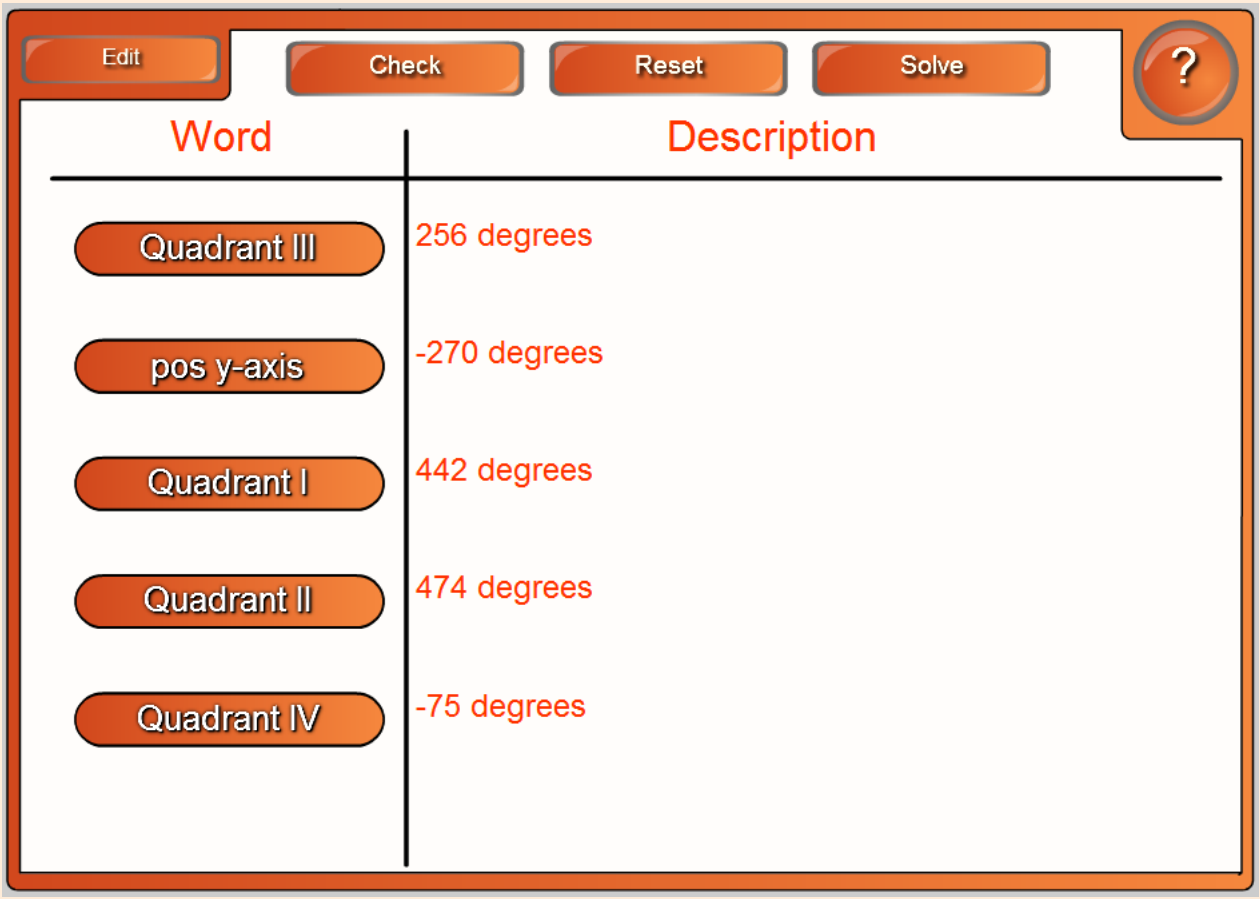


280^o

-80°

640°

In which quadrant or on which axis does the terminal side of each angle lie?



HW 13.2

p. 722 #1-19 odd, 37-43 odd, 45-49 all