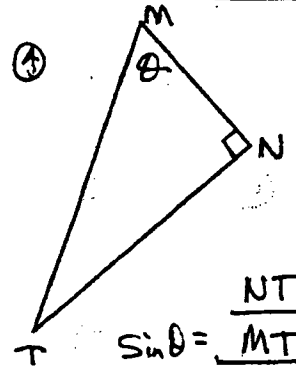
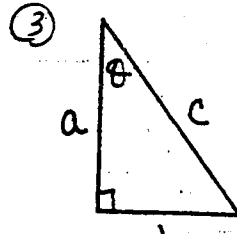
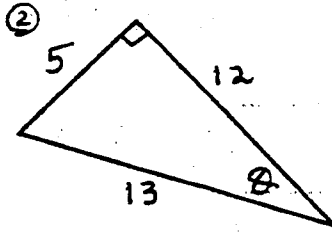
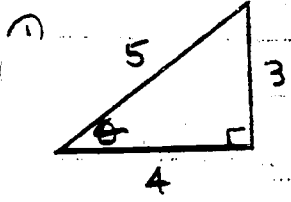


1-4 Give The correct ratios
Leave as fractions!

Name _____



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

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

$$\tan \theta = \frac{3}{4}$$

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

$$\cos \theta = \frac{12}{13}$$

$$\tan \theta = \frac{5}{12}$$

$$\sin \theta = \frac{a}{c}$$

$$\cos \theta = \frac{b}{c}$$

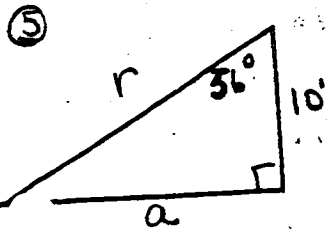
$$\tan \theta = \frac{a}{b}$$

$$\sin \theta = \frac{NT}{MT}$$

$$\cos \theta = \frac{MN}{MT}$$

$$\tan \theta = \frac{NT}{MN}$$

Find The missing sides - Show Work!



$$\cos 56^\circ = \frac{10}{r}$$

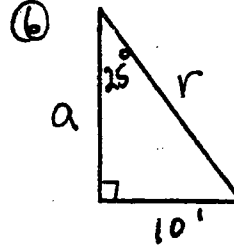
$$r \cos 56^\circ = 10$$

$$r = \frac{10}{\cos 56^\circ}$$

$$r = 17.9$$

$$\sin 56^\circ = \frac{a}{17.9}$$

$$14.8 = a$$



$$\sin 25^\circ = \frac{10}{r}$$

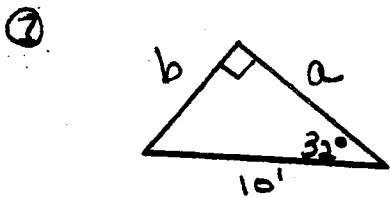
$$r \sin 25^\circ = 10$$

$$r = \frac{10}{\sin 25^\circ}$$

$$\cos 25^\circ = \frac{a}{23.7}$$

$$21.5 = a$$

$$r = 23.7$$

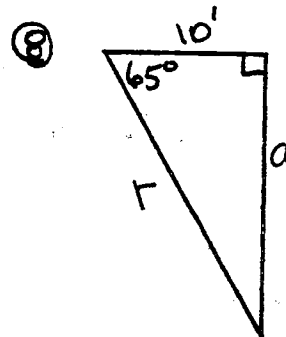


$$\cos 32^\circ = \frac{a}{10}$$

$$8.5 = a$$

$$\sin 32^\circ = \frac{b}{10}$$

$$5.3 = b$$



$$\cos 65^\circ = \frac{10}{r}$$

$$r \cos 65^\circ = 10$$

$$r = \frac{10}{\cos 65^\circ}$$

$$r = 23.7$$

$$\sin 65^\circ = \frac{a}{23.7}$$

$$21.5 = a$$

9-12 Find θ to the nearest tenth.

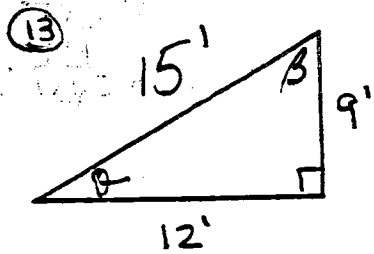
9) $\sin \theta = \frac{1}{2}$ 30°

10) $\cos \theta = 0.15$ 81.4°
 $\cos^{-1}(0.15) = \theta$

11) $\tan \theta = 0.7$ 35.0°
 $\tan^{-1}(0.7) = \theta$

12) $\sin \theta = .996$ 84.9°
 $\sin^{-1}(.996) = \theta$

Find The Missing Parts of The Triangles - Show Work!
 (nearest tenth)



$$9^2 + 12^2 = c^2$$

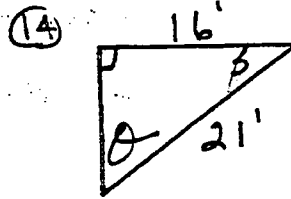
$$225 = c^2$$

$$15 = c$$

$$\tan \theta = \frac{9}{12}$$

$$\tan^{-1}\left(\frac{9}{12}\right) = 36.9^\circ$$

$$\beta = 53.1^\circ$$



$$21^2 - 16^2 = a^2$$

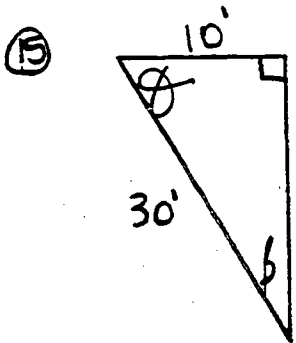
$$185 = a^2$$

$$13.6 = a$$

$$\sin \theta = \frac{16}{21}$$

$$\sin^{-1}\left(\frac{16}{21}\right) = 49.6^\circ$$

$$\beta = 40.4^\circ$$



$$30^2 - 10^2 = a^2$$

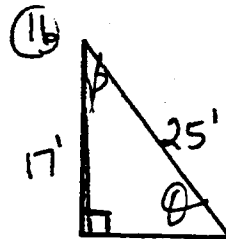
$$800 = a^2$$

$$28.3 = a$$

$$\cos \theta = \frac{10}{30}$$

$$\cos^{-1}\left(\frac{10}{30}\right) = 70.5^\circ$$

$$\beta = 19.5^\circ$$



$$25^2 - 17^2 = a^2$$

$$18.3 = a$$

$$\sin \theta = \frac{17}{25}$$

$$\sin^{-1}\left(\frac{17}{25}\right) = 42.8^\circ$$

$$\beta = 47.2^\circ$$