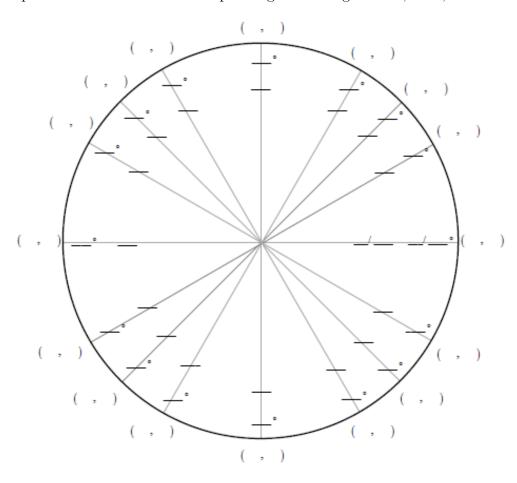
Name:

Group 1

Result:

1. (4 points) Fill in the parts of the unit circle corresponding to the angles  $135^{\circ}$ ,  $210^{\circ}$ ,  $270^{\circ}$  and  $300^{\circ}$ .



Write down the values of:

 $\sin 135^{\circ} =$ 

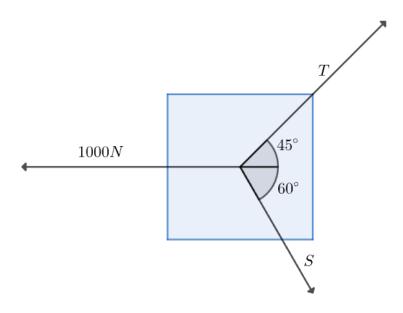
 $\cos 210^{\circ} =$ 

 $\sin 270^{\circ} =$ 

 $\cos 300^{\circ} =$ 

**2.** (4 points)

Three forces act on an object as shown on the diagram.



Given that the object is stationary find the forces T and S.

3.

(8 points)

Solve the following equations:

a) 
$$\sin \alpha = \frac{\sqrt{3}}{2}$$

b) 
$$\cos \beta = -\frac{1}{2}$$

c) 
$$\cos \gamma = -1$$

d) 
$$\sin \delta = -3$$