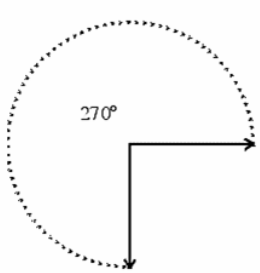
Name: _____

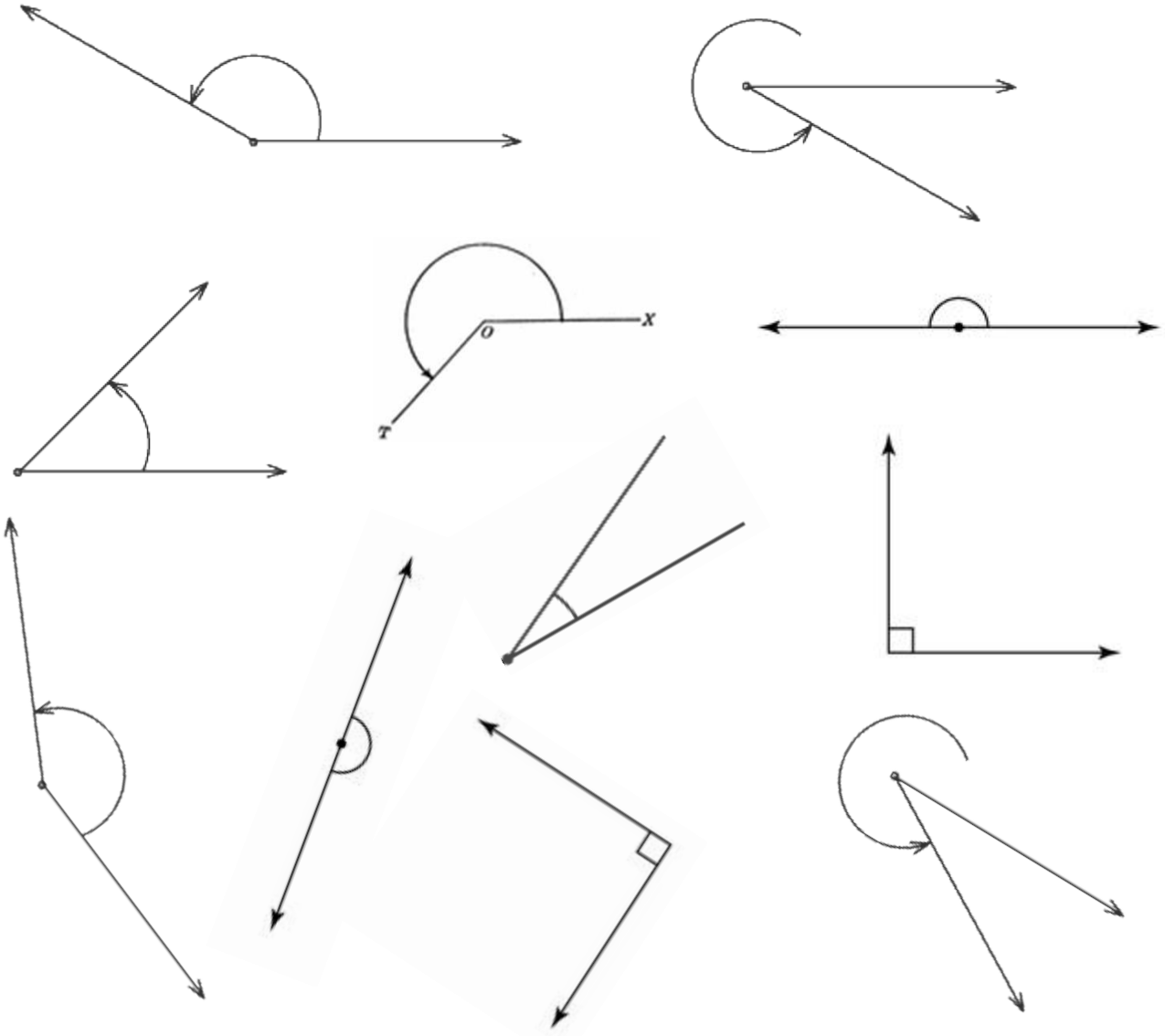
The angle at the right sweeps out ¾ of the circle. Its measure is ¾ of 360° = ¾ x 360° = 3 x 90° = 270°. Why?



An angle that is greater than a straight angle (> 180°) and less than a full circle (< 360°) is called a **reflex** angle. 270° is a reflex angle because it is between 180 and 360 degrees. We write this as 180° < 270° < 360°.

What fraction of the circle does a 320° angle sweep out? _____

Name the following angles as *acute*, *right*, *obtuse*, *straight* or *reflex*:



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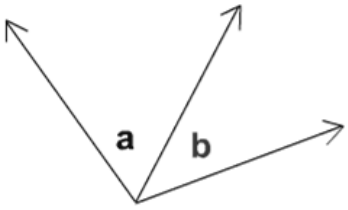
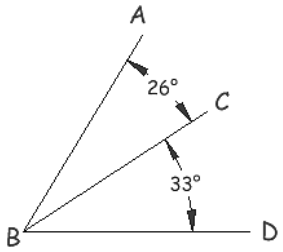


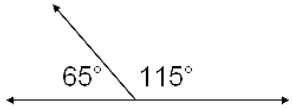
Adjacent angles are angles that have the same vertex point and share a common ray. Here angle ***a*** and angle ***b*** are adjacent angles.

Adjacent angles can be added together to form a larger angle.



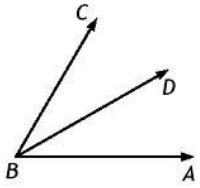
The measure of the combined angles will be the sum of the measures of the two smaller angles.
The measure of ∠ ABD (on the right) is 26° + 33° = 59°.

Below, we have a straight angle that is made up of two smaller angles.

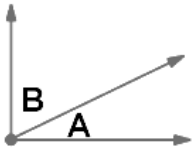


Notice that the measures of the angles making up the straight angle sum to 180°. 65° + 115° = 180°.

If we know the measure of a large angle and the measure of one of two component angles, we can figure out the measure of the other component angle.

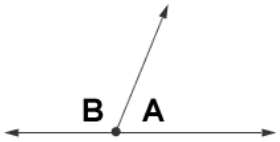


In the figure on the right, if we know that at measure of ∠ ABC (the combined angle) is 60° and that the measure of ∠ ABD (one of the component angles) is 36°, then the measure of ∠ DBC (the other component angle) is 60° – 36° = 24°.

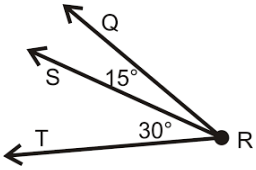


Here we have a right angle. We know that a right angle always has a measure of 90°. If we know that the measure of angle A is 20°, then the measure of angle B must be 70°.

1. In the figure on the right, if the measure of angle B is 120°, what is the measure of angle A? _____

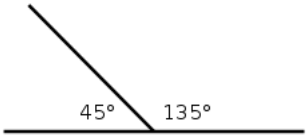


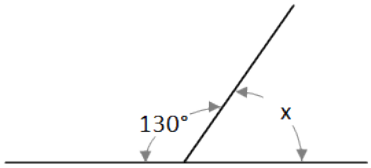
2. What is the measure of ∠ QRT (the combined angle) in the figure at the right?



Name: _____

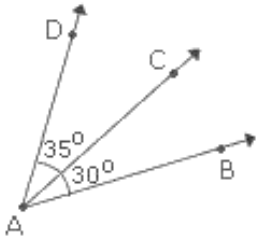
3. What is the measure of the combined angle in the figure to the right?

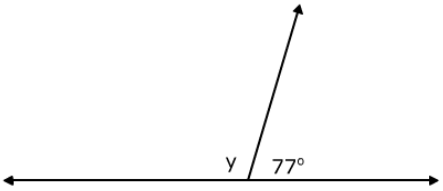




4. What is the measure of angle x?

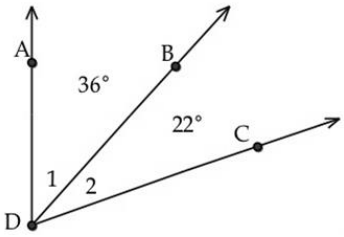
5. What is the measure of angle $\angle DAB$?

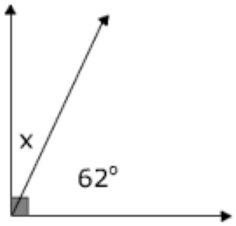




6. What is the measure of angle y?

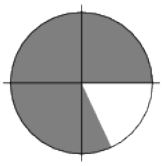
7. What is the measure of $\angle ADC$?

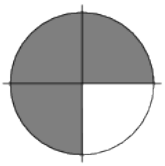




8. What is the measure of angle x?

9. If the *shaded* angle (to the right) measures 290°, what is the measure of the unshaded angle?





10. If the *unshaded* angle measures 90°, what is the measure of the shaded angle?