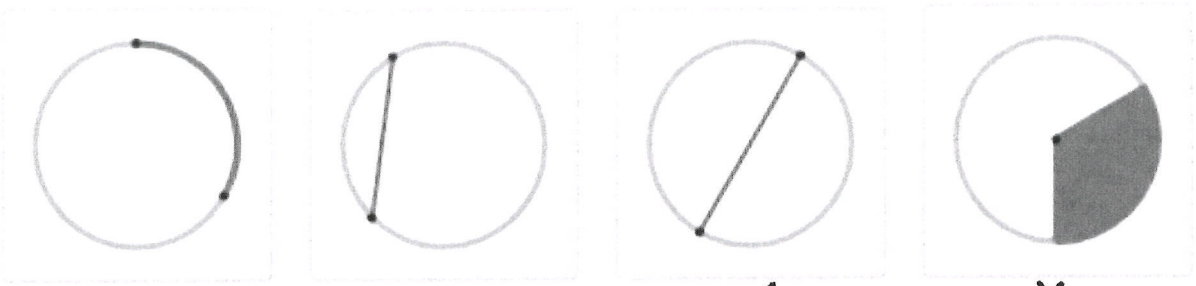
circle - a collection of points with an equal distance from a point called the center.
we name circles with center points.

Worked Examples - Parts of a Circle (IXL Geometry W.1)

1.

Which figure shows a diameter?

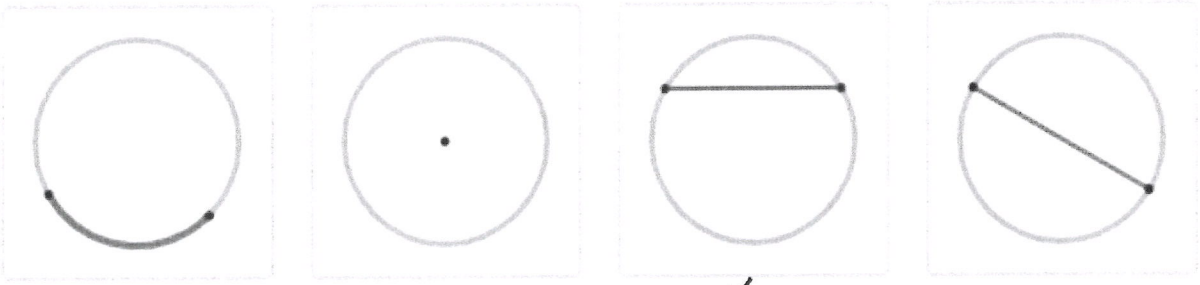


x x ✓ x

Diameter - A line segment that goes through the center, with both endpoints on the circle.

2.

Which figure shows the center?

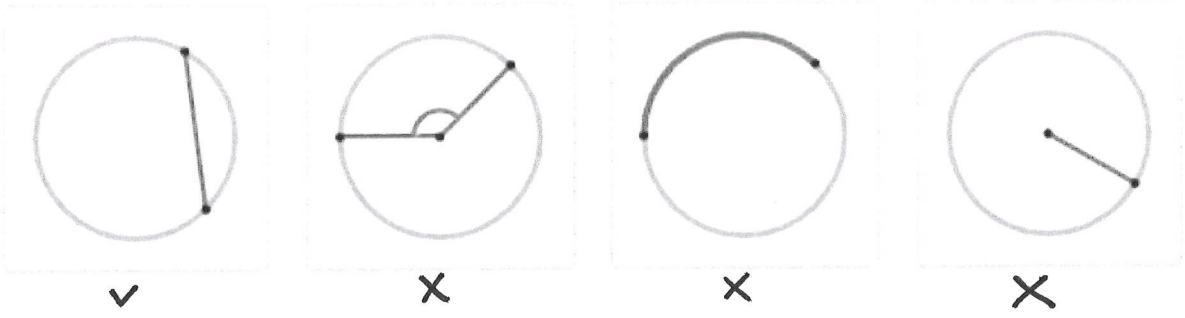


x ✓ x x

center - a point that is the same distance from every part of the circle. "In the middle."

3.

Which figure shows a chord?

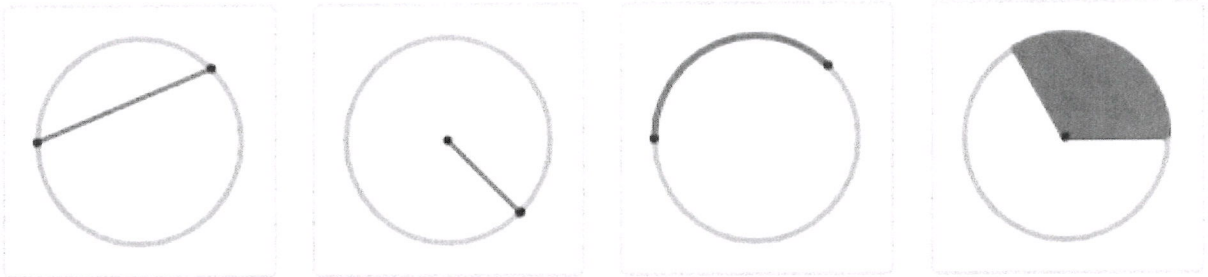


✓ ✗ ✗ ✗

Chord – A line segment with both endpoints on the circle.

4.

Which figure shows a radius?

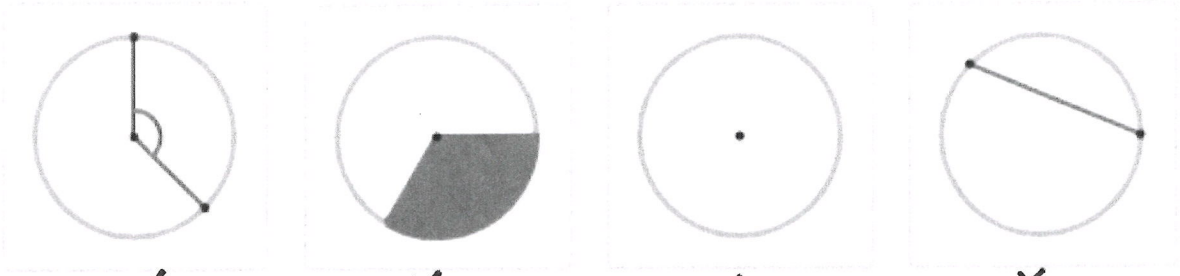


✗ ✓ ✗ ✗

Radius – A line segment whose endpoints are on the center and on the circle.

5.

Which figure shows a central angle?

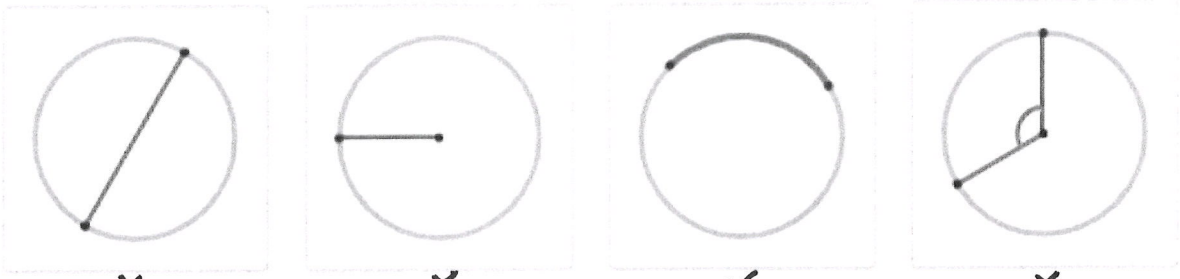


✓ ✗ ✗ ✗

Central Angle - An angle whose vertex is the center, and whose sides are radii.

6.

Which figure shows an arc?



✗ ✗ ✓ ✗

Arc - Part of the circle that is between two points on the circle. "Curved"

Major Arc

$> 1/2$

Minor Arc

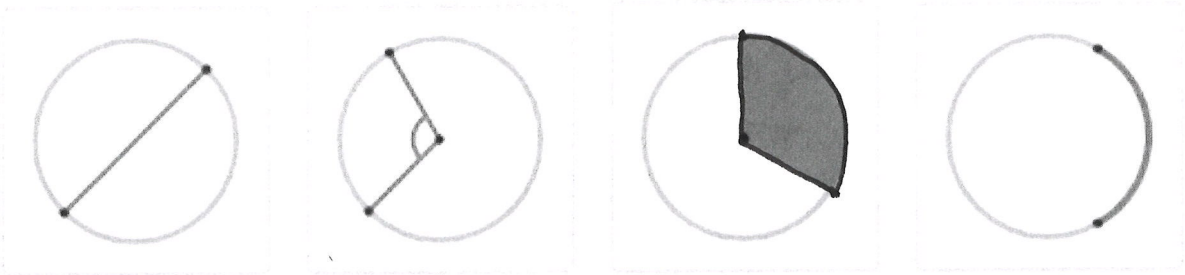
$< 1/2$

Semicircle

$= 1/2$

7.

Which figure shows a sector?

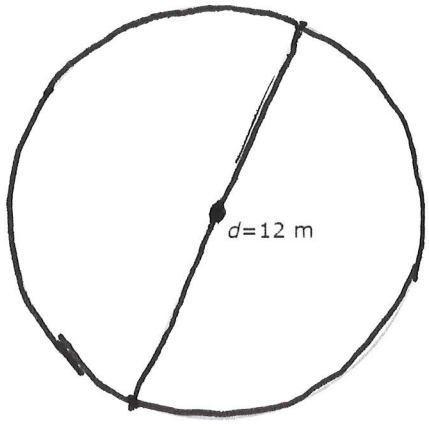


× × ✓ ×

Sector - A region whose boundaries are an arc and two radii that have endpoints on the arc.

8.

The diameter of a circle is 12 meters. What is the radius?



Give the exact answer in simplest form.

Given

Diameter = 12m

Find

Radius

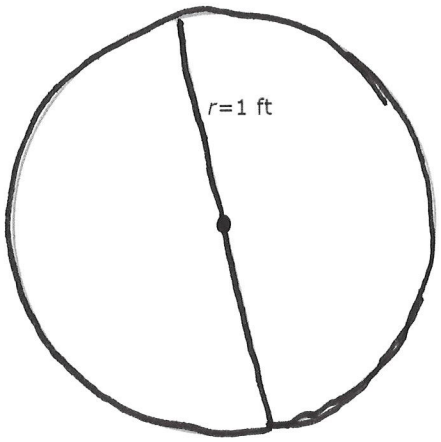
$2r = d$ or $r + r = d$

$\frac{2r}{2} = \frac{12}{2}$

$r = 6$ m

9.

The radius of a circle is 1 foot. What is the diameter?



Give the exact answer in simplest form.

Given

radius = 1ft

Find

Diameter

$2r = d$

$2(1) = d$

$2\text{ft} = d$