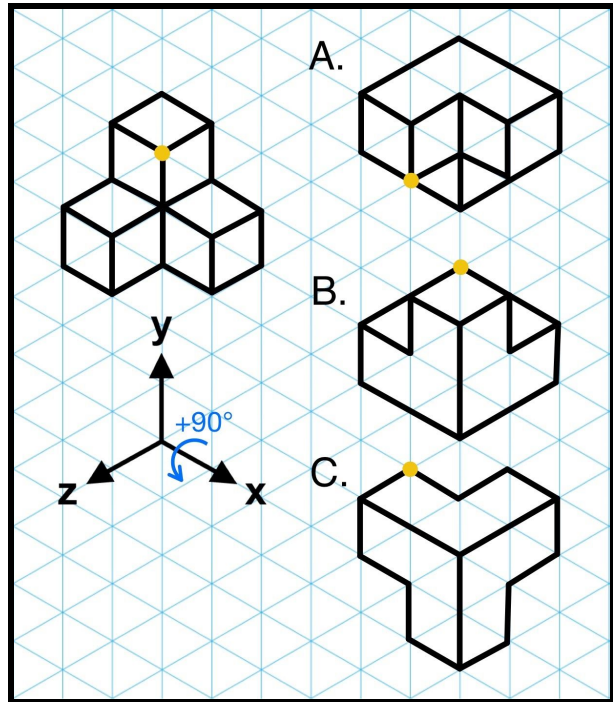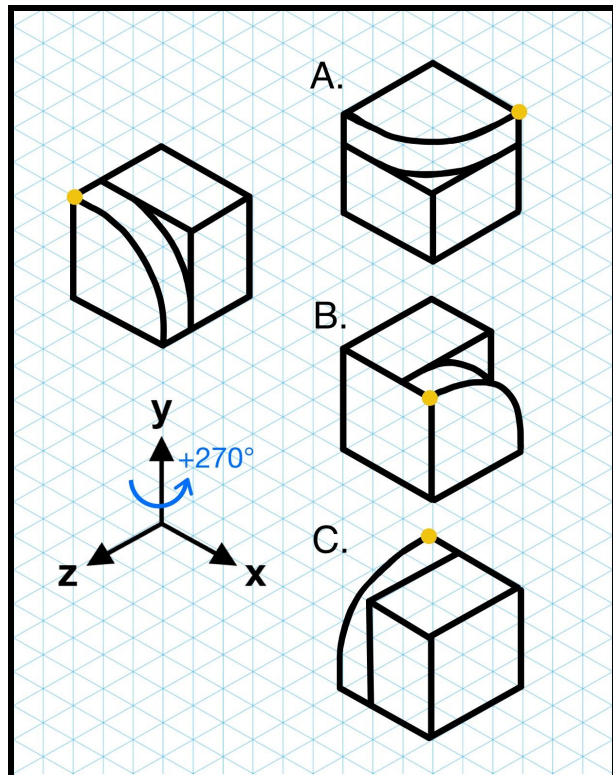# Activity 1
Lessons 7 and 8: Rotations about 1 and 2 axes

Part 1: Multiple choice with rotations about 1 axis

1. Choose the option that shows the shape on the left rotated +90 degrees about the x axis
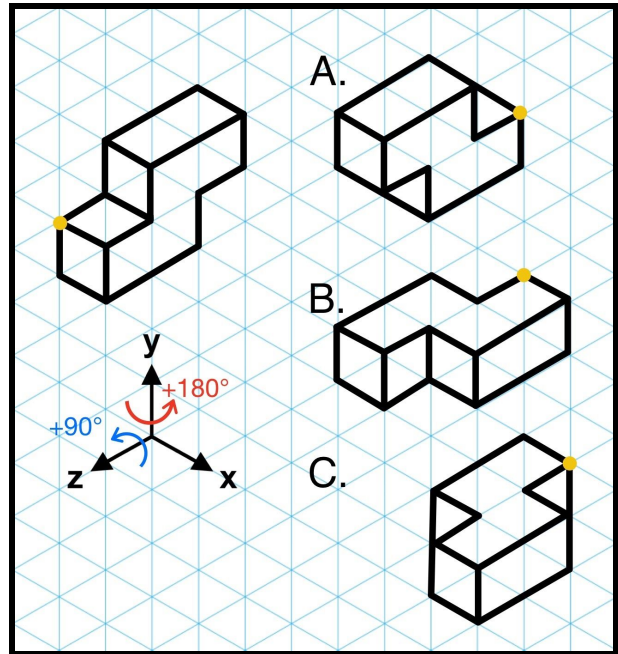

2. Choose the option that shows the shape on the left rotated +270 degrees about the y axis

Part 2: Multiple choice with rotations about 2 axes

1. Choose the option that shows the shape on the left rotated +90 degrees about the z axis AND +180 degrees about the y axis


2. Choose the option that shows the shape on the left rotated 90 degrees about the x axis AND 270 degrees about the y axis
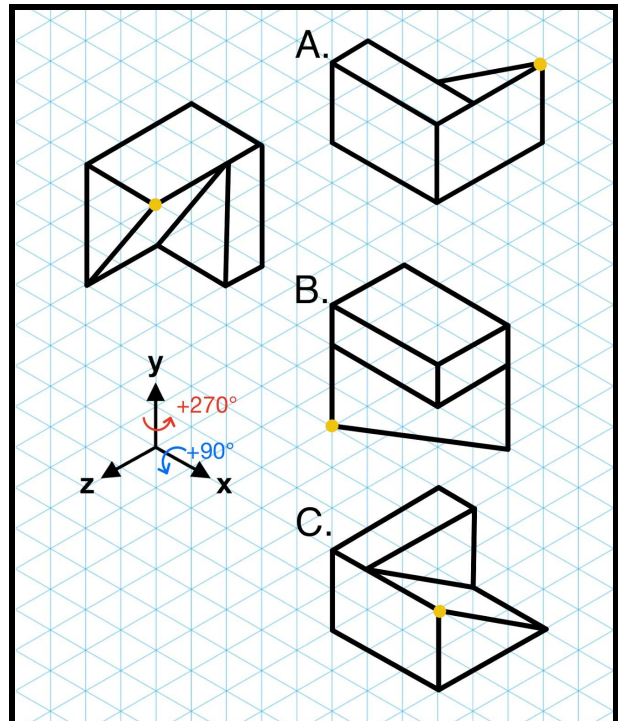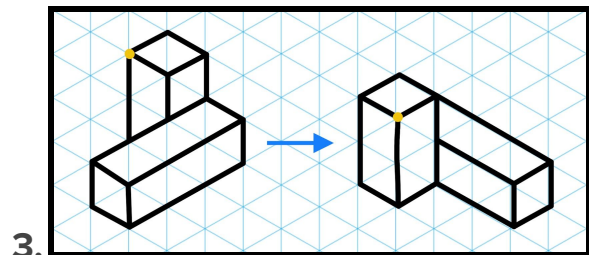
Part 3: Fill in the blank: "How was each of these shapes rotated?" For each case, fill in the blank with a positive angle (90, 180, or 270 degrees) and an axis (x, y, or z). Refer to the picture on the right for the correct rotating convention.
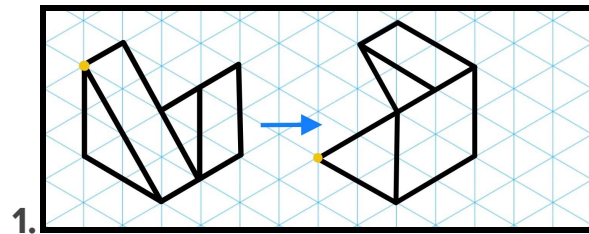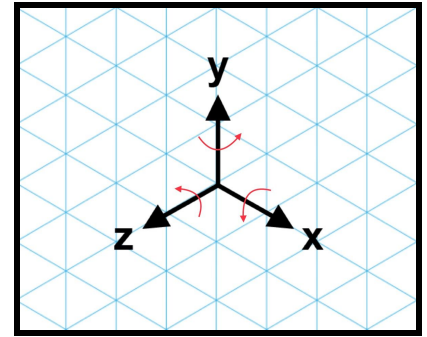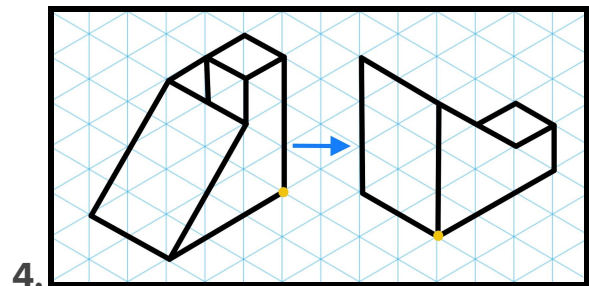
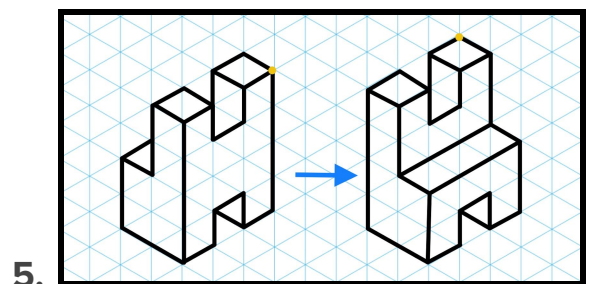**Shape #1** is rotated _____ degrees about the ____ axis
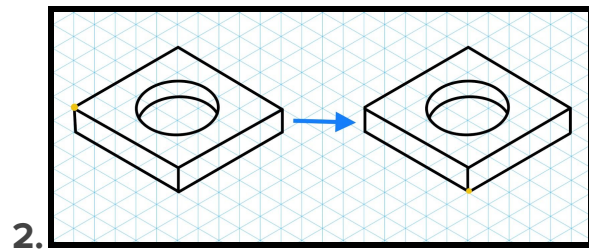
Shape #2 is rotated _____ degrees about the ____ axis

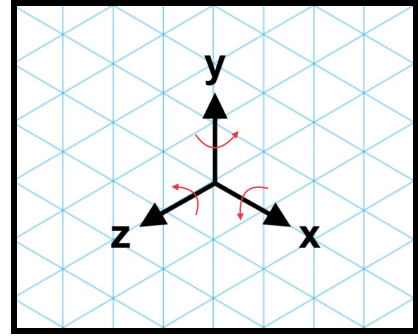**Shape #3** is rotated _____ degrees about the ____ axis

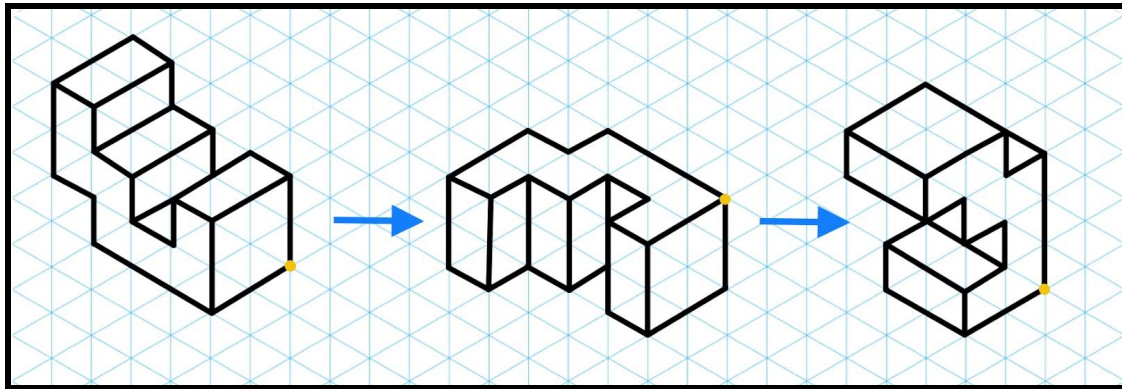**Shape #4** is rotated _____ degrees about the ____ axis

Shape #5 is rotated _____ degrees about the ____ axis

Part 4: Multiple choice: "How was each of these shapes rotated?" For each case, choose the right angle or axis or rotation. Refer to the picture on the right for the correct rotating convention.
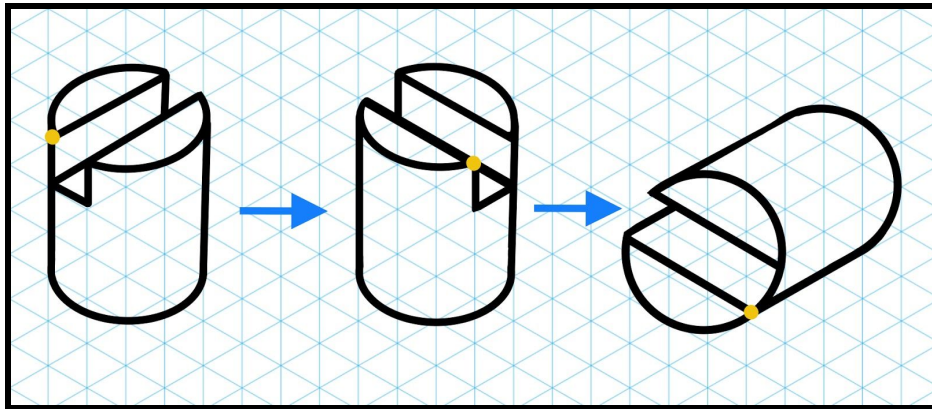

1.

First, **shape #1** is rotated _____ degrees about the x axis, and then it is rotated 270 degrees about the _____ axis.

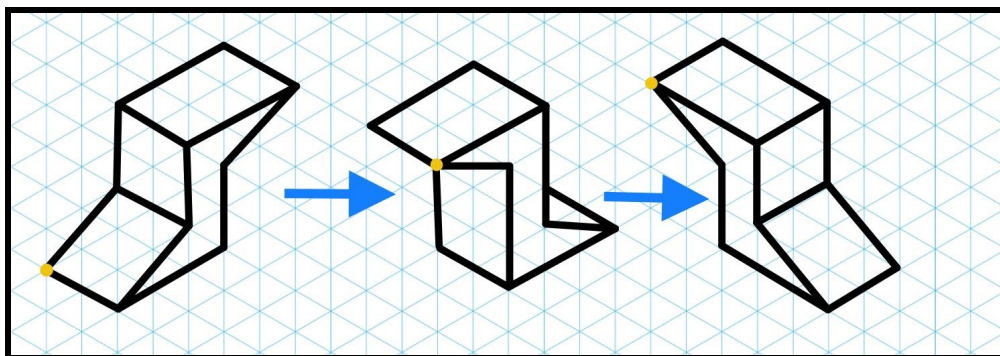|	
A. +180	D. x
B. -270	E. z
C. +90	F. y

2.

First, **shape #2** is rotated 90 degrees about the ____ axis, and then it is rotated ____ degrees about the x axis.

A. x	D. -90
B. z	E. +90
C. y	F. +270

3.

First, **shape #3** is rotated 180 degrees about the ____ axis, and then it is rotated ____ degrees about the y axis.

A. z	D. 270
B. x	E. -270
C. y	F. +180