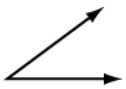
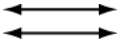
Content Standard	***MAFS.4.MD*** *Measurement and Data* ***MAFS.4.MD.3*** *Geometric measurement: understand concepts of angle and measure angles.* **MAFS.4.MD.3.5** Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. **MAFS.4.MD.3.5a** An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles. **MAFS.4.MD.3.5b** An angle that turns through *n* one-degree angles is said to have an angle measure of *n* degrees.
Assessment Limits	Whole number degree measures. Angles are less than or equal to 360°.
Calculator	No
Acceptable Response Mechanisms	Graphic Response – Drawing/Graphing Multiple Choice Response Multi-Select Response Matching Item Response
Context	Allowable

Example	
Context	Identify angles (measures less than or equal to 180°).
Context easier	Limit angles to benchmark angle measures of less than or equal to 180° (45°, 90°, 135°, 180°).
Context more difficult	Angles include those between 180° and 360°.

Sample Item Stem	Response Mechanism	Notes, Comments
Which is an angle? A.  B. C.  D. 	Multiple Choice Response	

<table>
<tr>
<td>Select the category of measure for each angle.

<table>
<tr><th></th><th>Less than 90°</th><th>Between 90° and 180°</th></tr>
<tr><td>  </td><td></td><td></td></tr>
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<td>Matching Item Response</td>
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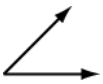
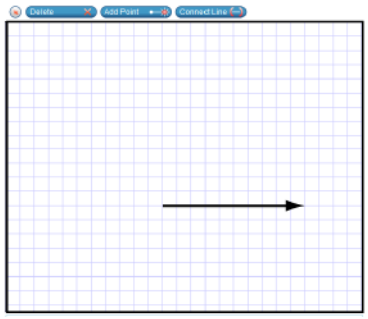
Content Standard	***MAFS.4.MD*** *Measurement and Data* ***MAFS.4.MD.3*** *Geometric measurement: understand concepts of angle and measure angles.* **MAFS.4.MD.3.6** Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
Assessment Limits	Whole number degree measures between 0° and 360°. For identification, angles are less than 360°. For construction, angles are less than 180°.
Calculator	No
Acceptable Response Mechanisms	Equation Response Graphic Response – Drawing/Graphing
Context	No context
Example	
Context	For measurement: angles with horizontal/vertical ray(s), and measure 120°, 135°, 150°, or 180°; angles without a horizontal/vertical ray, and measure 30°, 45°, 60°, or 90° For construction: angle measures are multiples of 5 but not 10.
Context easier	For measurement: limit angles to benchmark angle measures (30°, 45°, 60°, 90°) with horizontal and/or vertical rays. For construction: angle measures are multiples of 10.
Context more difficult	For measurement: angles without a horizontal/vertical ray, and measure 120°, 135°, 150°, or 180°; any angle greater than 180°. For construction: angle measures are integers that are not multiples of 5 or 10.

Sample Item Stem	Response Mechanism	Notes, Comments
An angle is shown.  What is the measure of the angle?	Equation Response	

One ray of angle T is shown. Use the Connect Line tool to draw another ray so that angle T measures 68°. 	Graphic Response – Drawing/Graphing	
An angle is shown.  What is the measure of the angle?	Equation Response	