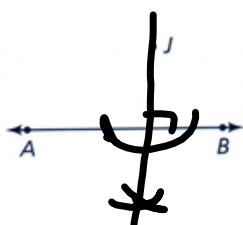


## Bell Ringer

### Construct Perpendicular Lines

1. Construct the line through point J that is perpendicular to line AB

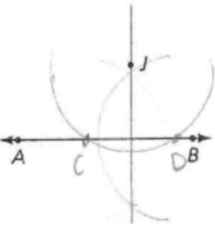


2. Given  $f(x) = 3x$  and  $g(x) = -4x + 2$ . Find  $(f \circ g)(x)$ .  $f(g(x))$

$$3(-4x+2)$$

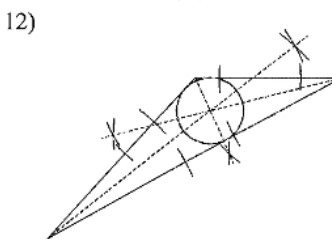
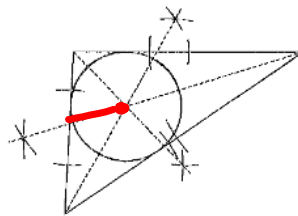
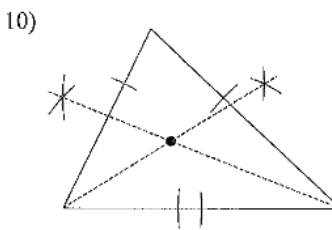
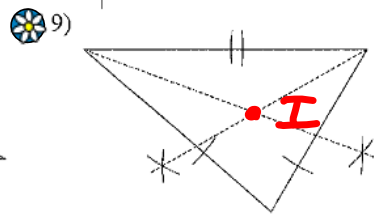
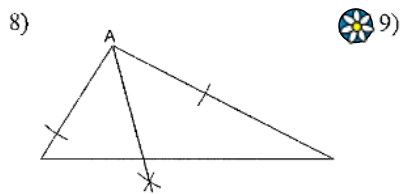
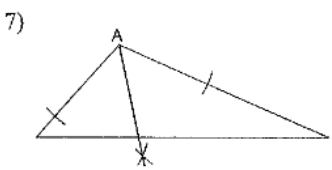
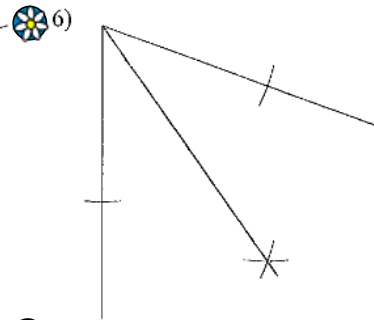
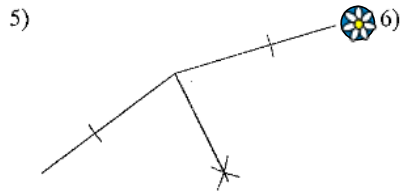
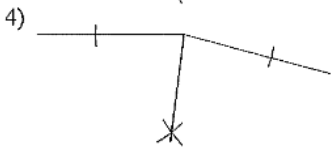
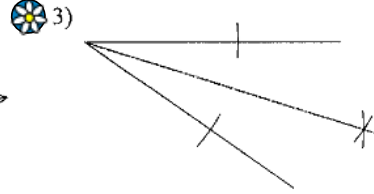
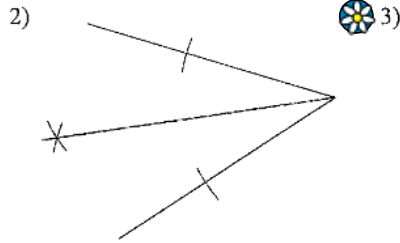
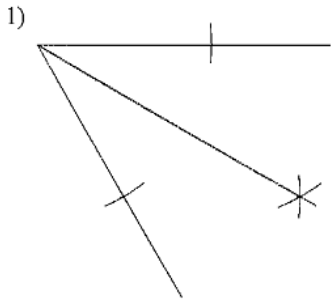
$$-12x + 6$$

## Solutions

Construct Perpendicular Lines
1. Construct the line through point J that is perpendicular to line AB

2. Given $f(x) = 3x$ and $g(x) = -4x + 2$ . Find $(f \circ g)(x)$ .
$3(-4x+2) = \boxed{-12x+6}$

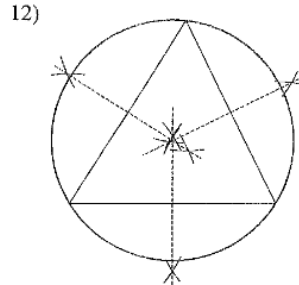
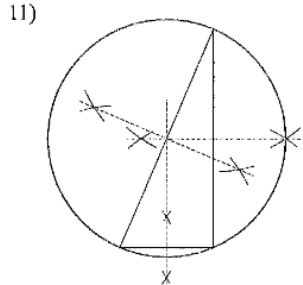
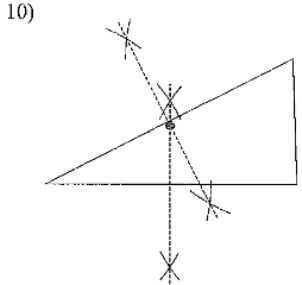
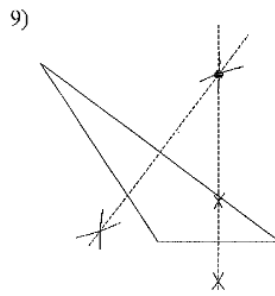
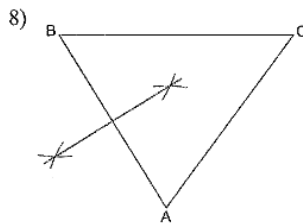
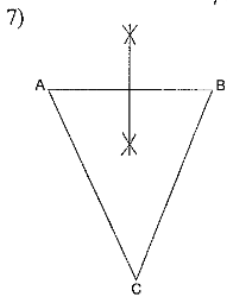
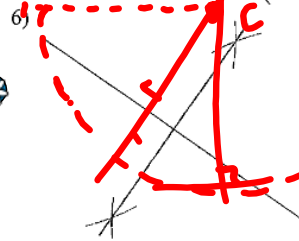
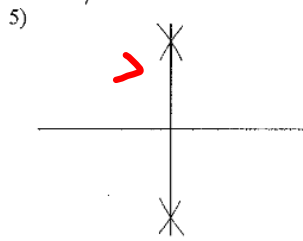
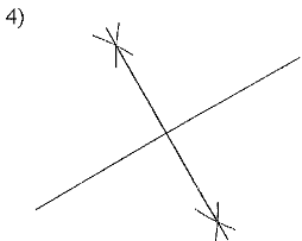
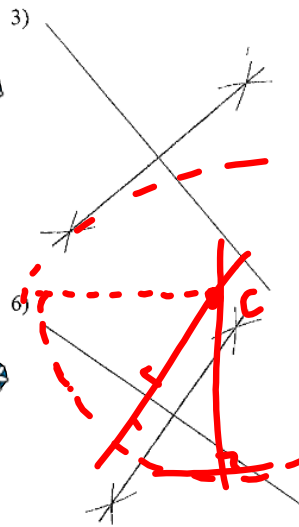
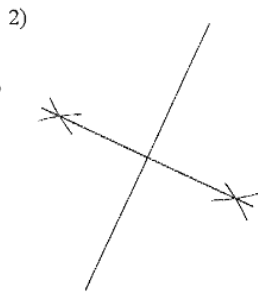
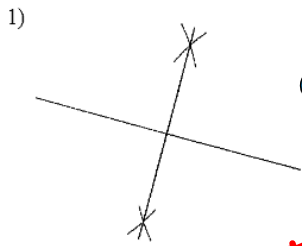
## Correct 7B Angle and Perpendicular Bisectors

Answers to Angle Bisectors





Answers to Perpendicular bisectors



# 7C Perpendicular Lines due Monday



pg 11

Video

Parallel Lines



**Start:** Start with a line segment  $PQ$  and a point  $R$  off the line.

**Step 1:** Draw a transverse line through  $R$  and across the line  $PQ$  at an angle, forming the point  $J$  where it intersects the line  $PQ$ . The exact angle is not important.

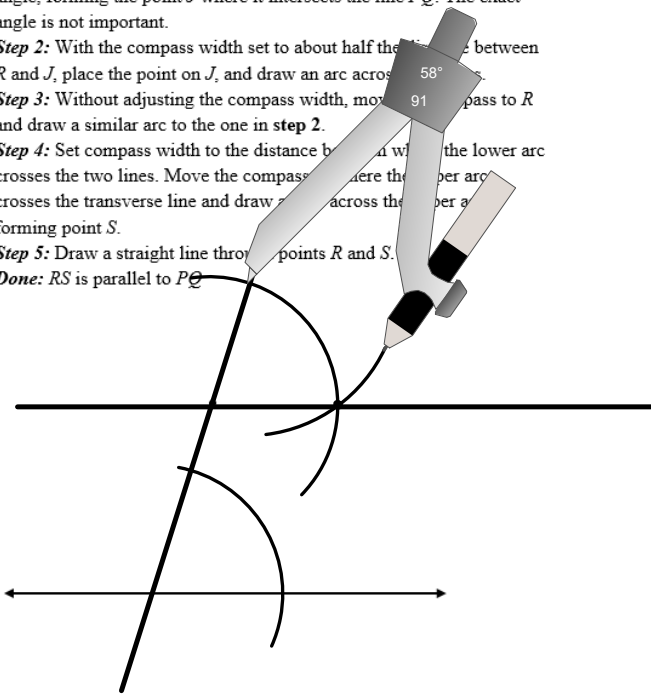
**Step 2:** With the compass width set to about half the distance between  $R$  and  $J$ , place the point on  $J$ , and draw an arc across the transverse line.

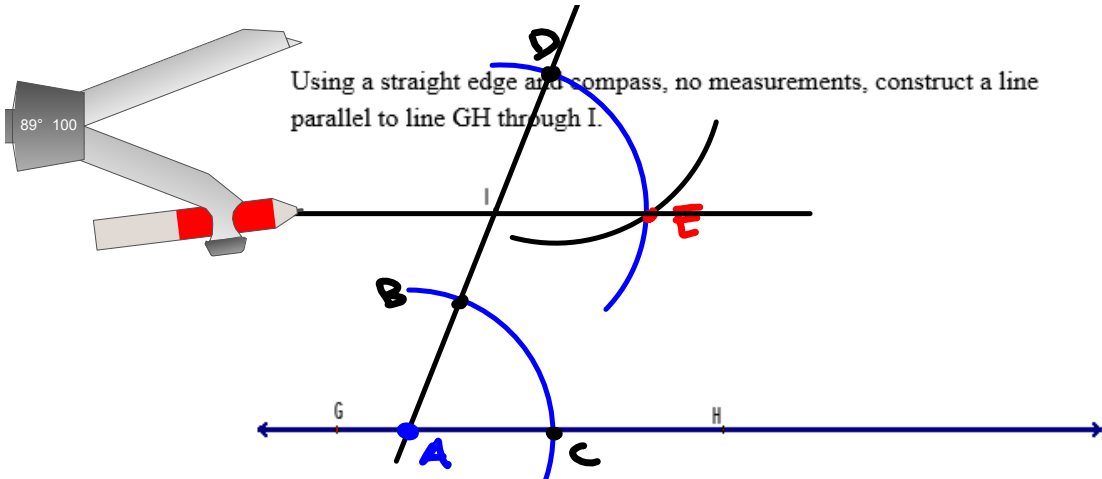
**Step 3:** Without adjusting the compass width, move the compass to  $R$  and draw a similar arc to the one in step 2.

**Step 4:** Set compass width to the distance between the two arcs. Move the compass to where the upper arc crosses the transverse line and draw an arc across the lower arc, forming point  $S$ .

**Step 5:** Draw a straight line through points  $R$  and  $S$ .

**Done:**  $RS$  is parallel to  $PQ$ .





Using a straight edge and compass, no measurements, construct a line parallel to line GH through I.

Using a straight edge and compass, no measurements, construct two lines perpendicular to line JK through M and N. Construct a line parallel to JK through L.





Name \_\_\_\_\_ Hour \_\_\_\_\_ 7D - Constructing Parallel Lines

Constructing Parallel lines through a given point

Construct a line parallel to the given line and passes through the given point.

1.



2.



3.



4.



5.



6.



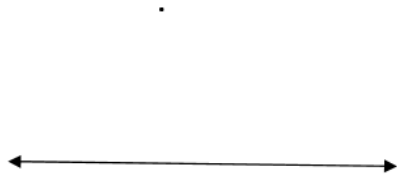
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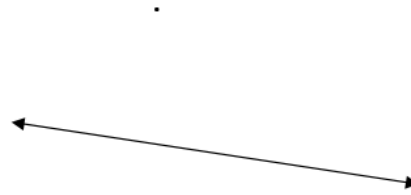
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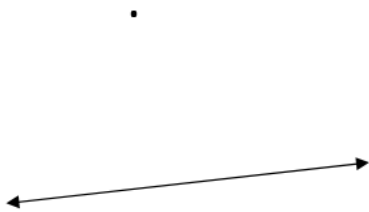
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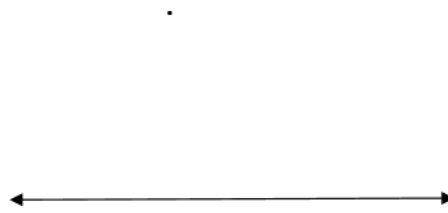
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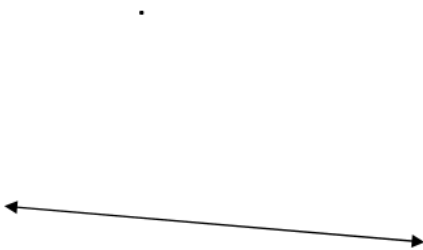
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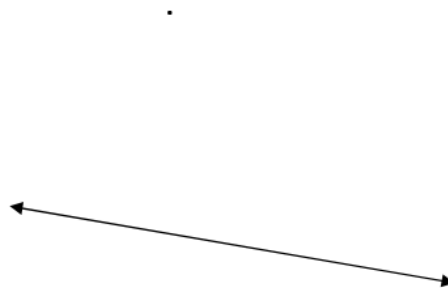
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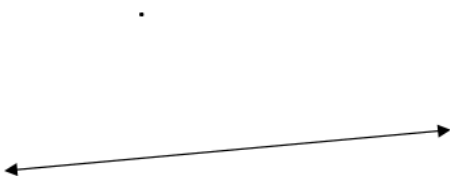
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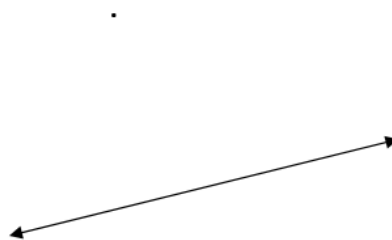
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15.

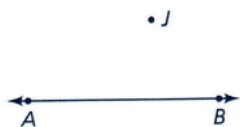


16.



## Construct Perpendicular Lines

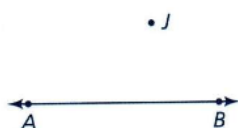
1. Construct the line through point J that is parallel to line AB



2. Given  $f(x) = 3x$  and  $g(x) = -4x + 2$ . Find  $(f \circ g)(x)$ .

## Construct Parallel Lines

1. Construct the line through point J that is perpendicular to line AB



3. Solve the exponential function  $2^{x-1} = 64$

## Construct Triangles

1. Construct an Isosceles Triangle with one side length congruent to segment AB.



2. Construct an Equilateral Triangle with side lengths congruent to segment AB.



3. Evaluate  $y = 2(4)^x$  when  $x = -1, 0$  and  $1$ .