

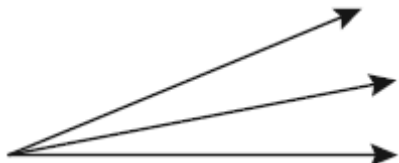
NAME: \_\_\_\_\_

*G.G.17: Construct a bisector of a given angle, using a straightedge and compass, and justify the construction*

1. 060925ge, P.I. G.G.17

Which illustration shows the correct construction of an angle bisector?

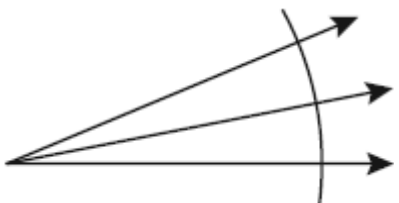
[A]



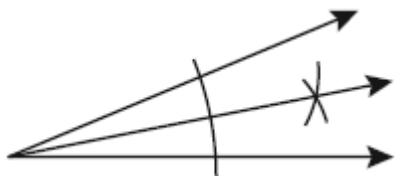
[B]



[C]

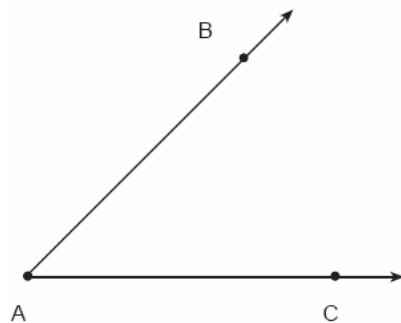


[D]



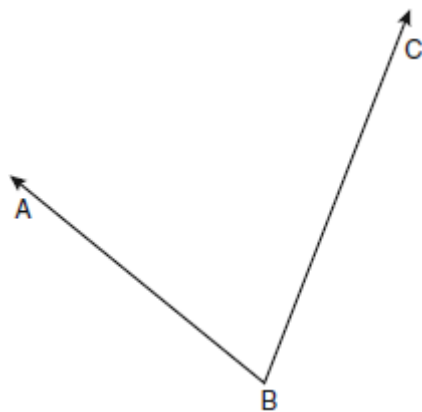
2. 060022a, P.I. G.G.17

Using only a ruler and compass, construct the bisector of angle  $BAC$  in the accompanying diagram.



3. 080932ge, P.I. G.G.17

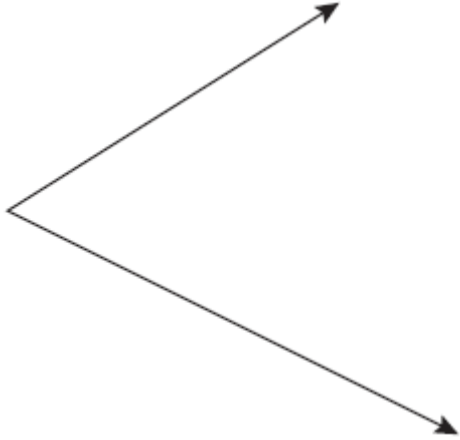
Using a compass and straightedge, construct the angle bisector of  $\angle ABC$  shown below. [Leave all construction marks.]



NAME: \_\_\_\_\_

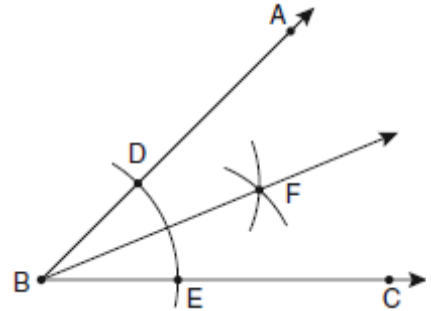
4. fall0832ge, P.I. G.G.17

Using a compass and straightedge, construct the bisector of the angle shown below.  
[Leave all construction marks.]



5. 080902ge, P.I. G.G.17

The diagram below shows the construction of the bisector of  $\angle ABC$ .



Which statement is *not* true?

- [A]  $m\angle EBF = \frac{1}{2}m\angle ABC$   
[B]  $m\angle DBF = m\angle EBF$   
[C]  $m\angle EBF = m\angle ABC$   
[D]  $m\angle DBF = \frac{1}{2}m\angle ABC$

*G.G.17: Construct a bisector of a given angle, using a straightedge and compass, and justify the construction*

[1] D

[2] A correct construction is drawn to find the midpoint of  $\overline{BC}$ , showing both sets of arcs and a line connecting A with the midpoint.

[1] A correct construction is drawn to find the midpoint of  $\overline{BC}$ , but the median is not drawn.

or [1] The construction is appropriate, but a compass and a straightedge are not used.

[0] No construction arcs are shown.

or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an

[2] obviously incorrect procedure.

[2] A correct construction is drawn showing all appropriate arcs, and the angle bisector is drawn.

[1] All construction arcs are drawn, but the angle bisector line is not drawn.

or [1] Appropriate work is shown, but one construction error is made, such as not extending the sides of the original angle to show points of intersection of the arc.

[0] A drawing that is not an appropriate construction is shown.

or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an

[3] obviously incorrect procedure.

[2] A correct construction is drawn showing all appropriate arcs, and the angle bisector is drawn.

[1] All construction arcs are drawn, but the angle bisector is not drawn.

or [1] The appropriate method is demonstrated, but one construction error is made, such as not extending the sides to show points of intersection by the arc.

[0] A drawing that is not an appropriate construction is shown.

or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an

[4] obviously incorrect procedure.

[5] C