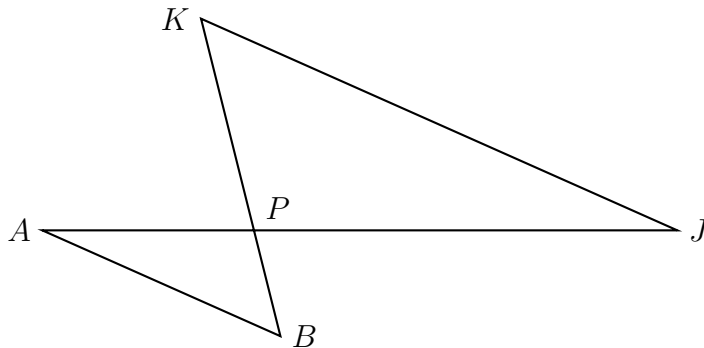


Name: \_\_\_\_\_

**Do Now: Similar triangles, dilation ratios**

1. Given  $\triangle ABP$  and  $\triangle JKP$  as shown below.  $\overline{AB} \parallel \overline{JK}$ . Prove  $\triangle ABP \sim \triangle JKP$ .



Statement

Reason

1)  $\triangle ABP, \triangle JKP$

1) Given

2) \_\_\_\_\_

2) Given

3)  $\angle APB \cong \angle JPK$

3) \_\_\_\_\_

4)  $\angle PAB \cong \angle PJK$

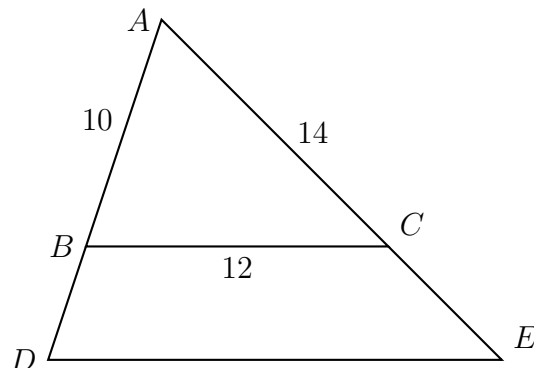
4) \_\_\_\_\_

5)  $\triangle ABP \sim \triangle JKP$

5) \_\_\_\_\_

2. Triangle  $ABC$  is dilated with a factor of  $\frac{3}{2}$  centered at  $A$ , yielding  $\triangle ADE$ , as shown. Given  $AB = 10$ ,  $BC = 12$ , and  $AC = 14$ .

Find  $AD$ ,  $AE$ , and  $DE$ .



3. Early finishers: Triangle  $ADE$  is drawn with  $\overline{BC} \parallel \overline{DE}$ , as shown. Given  $AB = 5$ ,  $BC = 7$ ,  $AC = 8$ , and  $BD = 5$ .

Find  $CE$ ,  $AE$ , and  $DE$ .

