

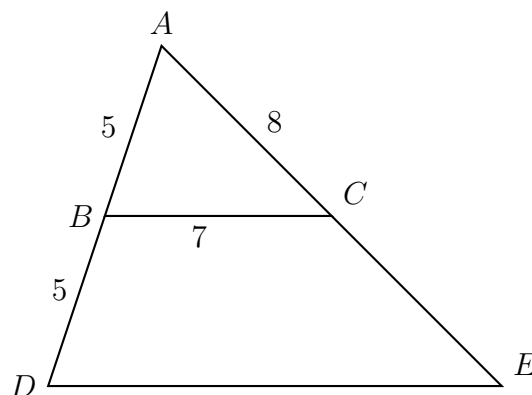
25 February 2019

Name:

**7-14 Triangle midlines and similar triangles**

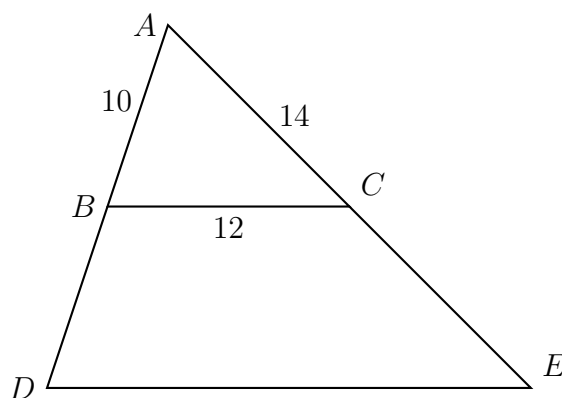
1. Triangle  $ADE$  is drawn with  $\overline{BC} \parallel \overline{DE}$ , as shown. Given  $AB = 5$ ,  $BC = 7$ ,  $AC = 8$ , and  $BD = 5$ .

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



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

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



3. Given  $\triangle ABP$  and  $\triangle JKP$  as shown below.  $\overline{AB} \parallel \overline{JK}$ .  $AP = 5.7$ ,  $JP = 11.4$ , and  $JK = 14.8$ . Find  $AB$ .

