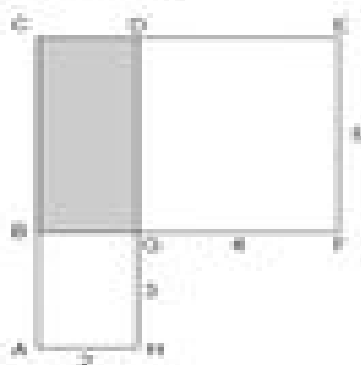


**Section 7-6: Areas of Irregular Polygons**

1. *Answer: 11, 40%*

In the accompanying figure,  $\triangle CDE$  and  $\triangle DEF$  are triangles,  $AD = 2$ ,  $CE = 3$ ,  $CF = 4$ , and  $FE = 3$ .

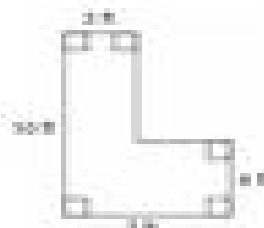


What is the area of  $\triangle CDE$ ?

- (A) 20    (B) 10    (C) 4    (D) 8

2. *Answer: 14, 40%*

Karolina wants to tile the floor shown in the accompanying diagram. If each tile measures 1 foot by 1 foot and costs \$2.99, what will be the total cost, including an 8% sales tax, for tiling the floor?



3. *Answer:*

A picnic table in the shape of a regular octagon is shown in the accompanying diagram. If the length of  $\overline{AD}$  is 6 feet, find the length of one side of the table to the nearest tenth of a foot, and find the area of the table's surface to the nearest tenth of a square foot.

