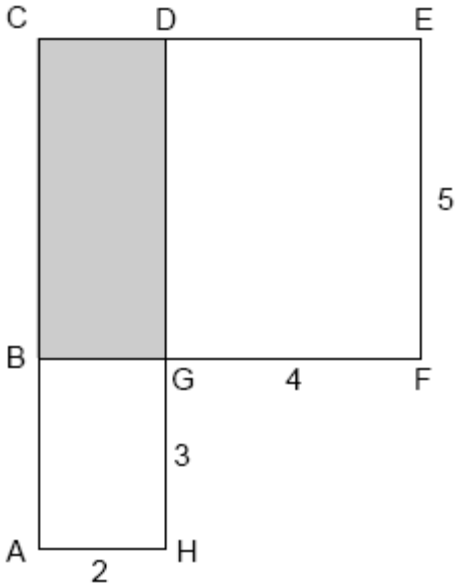


Section 7-6: Areas of Irregular Polygons

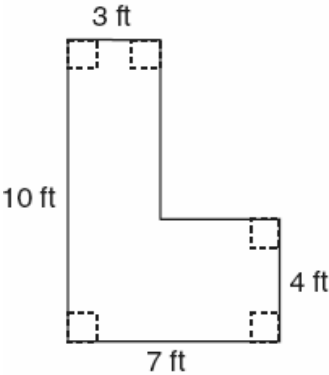
1. 069916a, P.I. A.G.1
- In the accompanying figure,  $ACDH$  and  $BCEF$  are rectangles,  $AH = 2$ ,  $GH = 3$ ,  $GF = 4$ , and  $FE = 5$ .



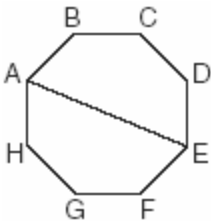
What is the area of  $BCDG$ ?

[A] 20    [B] 10    [C] 6    [D] 8

2. 060132a, P.I. A.G.1
- Keesha 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. 010330b
- A picnic table in the shape of a regular octagon is shown in the accompanying diagram. If the length of  $\overline{AE}$  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.



[1] B \_\_\_\_\_

[4] \$148.54, and appropriate work is shown.

[3] The correct pre-tax amount of \$137.54 is found, but no tax or an incorrect tax is shown.

or [3] Appropriate work is shown, but one computational error is made.

[2] The correct area of  $46 \text{ ft}^2$  is found, but no cost is shown.

or [2] Appropriate work is shown, but more than one computational error is made.

or [2] An incorrect area is determined, such as by adding or multiplying all sides, but then a final cost including tax is determined appropriately.

[1] An incorrect area is shown, and one computational error is made.

or [1] \$148.54, but no work is shown.

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

[2] incorrect procedure.

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[4] The side equals 2.3 and the area equals 25.5, and appropriate work is shown.

[3] Appropriate work is shown, but one computational or rounding error is made.

[2] Appropriate work is shown, but one incorrect formula is used, such as using an incorrect trigonometric function, but appropriate answers are found.

or [2] Appropriate work is shown to find the correct side, but no further correct work is shown.

[1] The radius equals 3 and the central angle equals  $45^\circ$ , but no further correct work is shown.

or [1] The side equals 2.3 and the area equals 25.5, but no work is shown.

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

[3] incorrect procedure.

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