

Area and Perimeter of Composite Shapes (E)

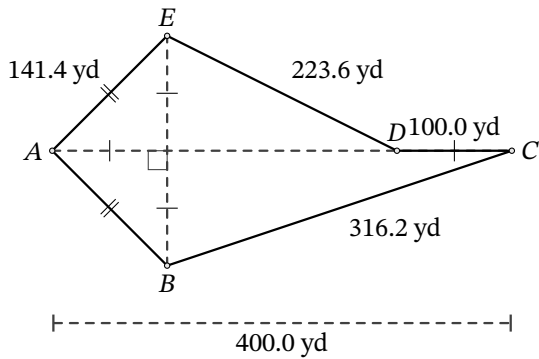
Name: _____

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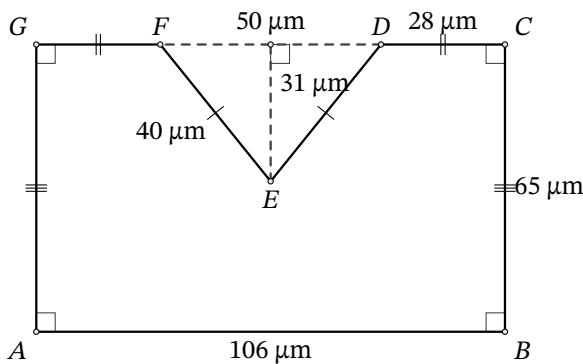
Score: _____

Calculate the area and perimeter of each figure. Round to the number of decimals in the measurements.

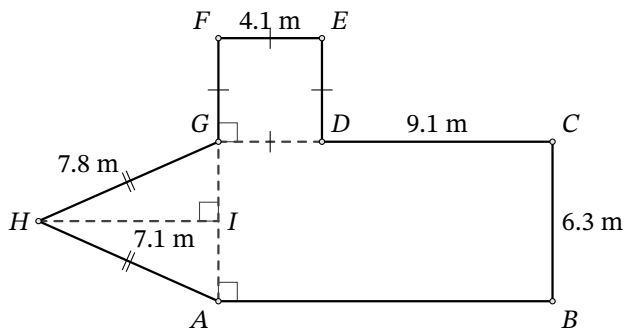
1.



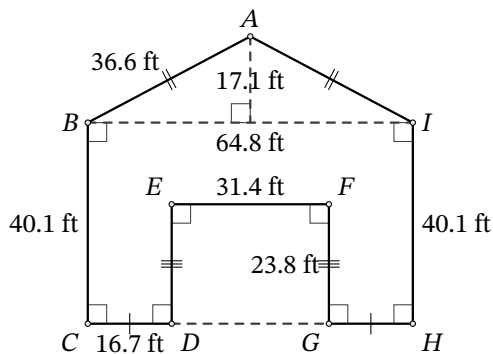
2.



3.



4.



Area and Perimeter of Composite Shapes (E) Answers

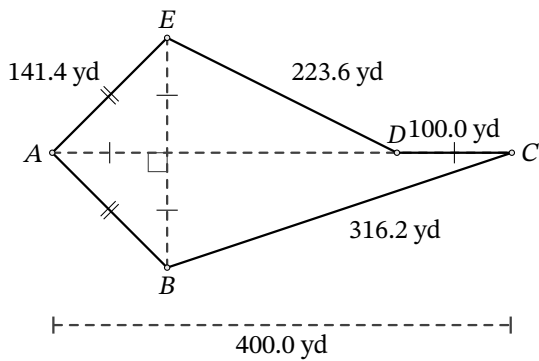
Name: _____

Date: _____

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Calculate the area and perimeter of each figure. Round to the number of decimals in the measurements.

1.



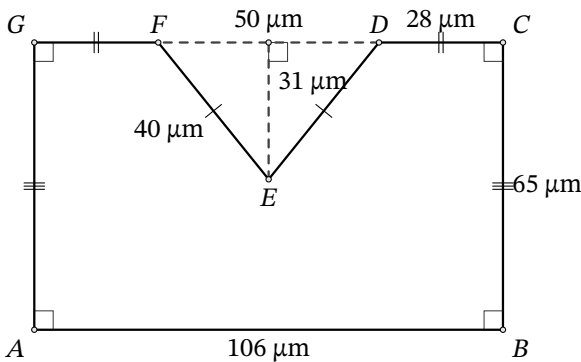
Area

$$\begin{aligned} & (\text{Area of } ABC) + (\text{Area of } ADE) \\ &= \left(\frac{400.0 \times 100.0}{2}\right) + \left(\frac{300.0 \times 100.0}{2}\right) \\ &= 20,000.0 + 15,000.0 \\ &= 35,000.0 \text{ yd}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EA \\ &= 141.4 + 316.2 + 100.0 + 223.6 + 141.4 \\ &= 922.6 \text{ yd} \end{aligned}$$

2.



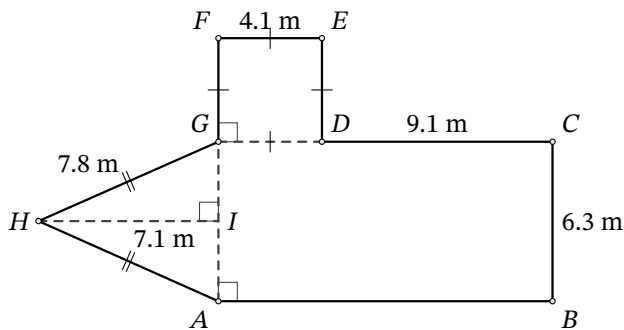
Area

$$\begin{aligned} & (\text{Area of } ABCG) - (\text{Area of } DFE) \\ &= (65 \times 106) - \left(\frac{50 \times 31}{2}\right) \\ &= 6890 - 775 \\ &= 6115 \mu\text{m}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GA \\ &= 106 + 65 + 28 + 40 + 40 + 28 + 65 \\ &= 372 \mu\text{m} \end{aligned}$$

3.



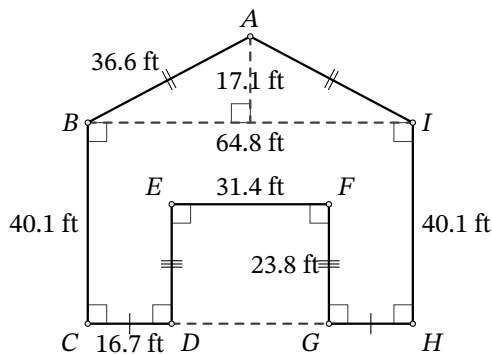
Area

$$\begin{aligned} & (\text{Area of } AGH) + (\text{Area of } ABCG) + (\text{Area of } DEFG) \\ &= \left(\frac{6.3 \times 7.1}{2}\right) + (6.3 \times 13.2) + (4.1^2) \\ &= 22.365 + 83.16 + 16.81 \\ &= 122.3 \text{ m}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GH + HA \\ &= 13.2 + 6.3 + 9.1 + 4.1 + 4.1 + 4.1 + 7.8 + 7.8 \\ &= 56.5 \text{ m} \end{aligned}$$

4.



Area

$$\begin{aligned} & (\text{Area of } BCHI) - (\text{Area of } DGFE) + (\text{Area of } ABE) \\ &= (40.1 \times 64.8) - (23.8 \times 31.4) + \left(\frac{64.8 \times 17.1}{2}\right) \\ &= 2598.48 - 747.32 + 554.04 \\ &= 2405.2 \text{ ft}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GH + HI + IA \\ &= 36.6 + 40.1 + 16.7 + 23.8 + 31.4 + 23.8 + 16.7 + 40.1 + 36.6 \\ &= 265.8 \text{ ft} \end{aligned}$$