

Area and Perimeter of Composite Shapes (D)

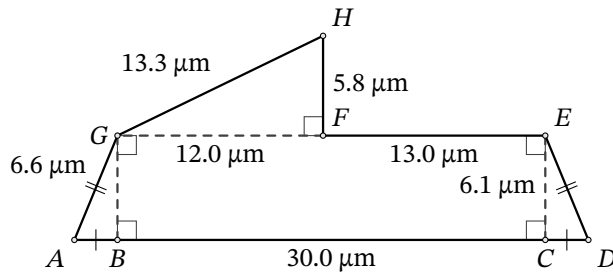
Name: _____

Date: _____

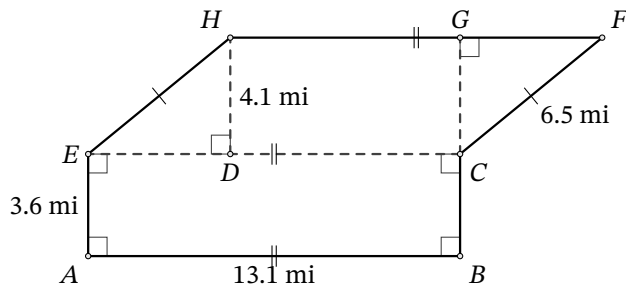
Score: _____

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

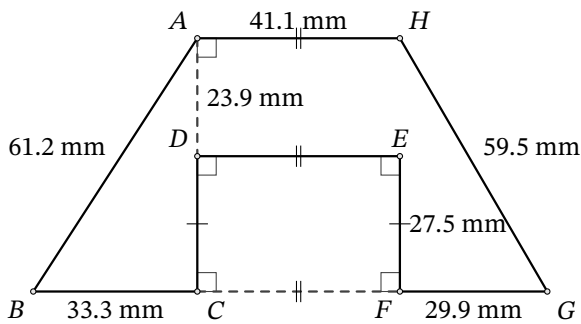
1.



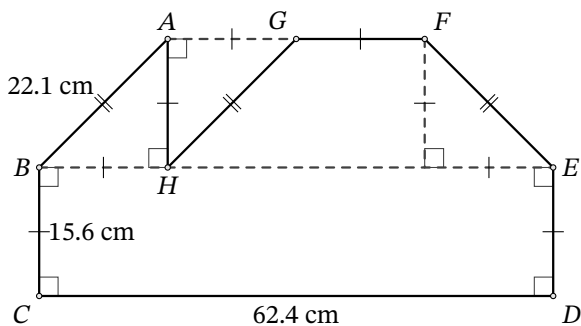
2.



3.



4.



Area and Perimeter of Composite Shapes (D) Answers

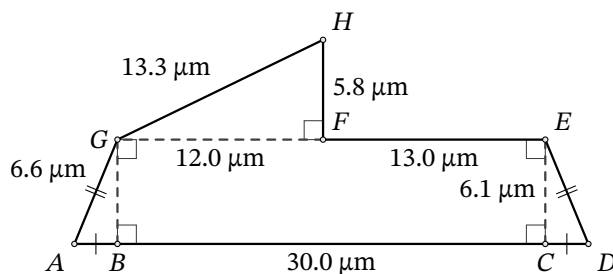
Name: _____

Date: _____

Score: _____

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

1.



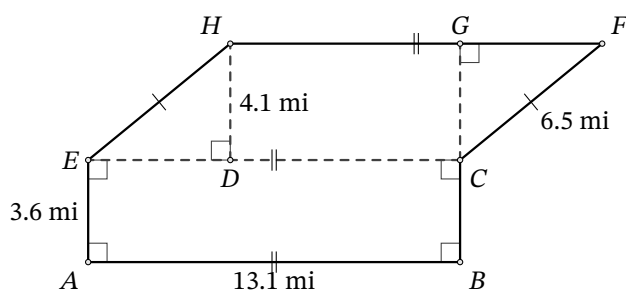
Area

$$\begin{aligned} & (\text{Area of } ADEG) + (\text{Area of } FHG) \\ &= \left(\frac{30.0+25.0}{2} \times 6.1 \right) + \left(\frac{12.0 \times 5.8}{2} \right) \\ &= 167.75 + 34.8 \\ &= 202.6 \mu\text{m}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AD + DE + EF + FH + HG + GA \\ &= 30.0 + 6.6 + 13.0 + 5.8 + 13.3 + 6.6 \\ &= 75.3 \mu\text{m} \end{aligned}$$

2.



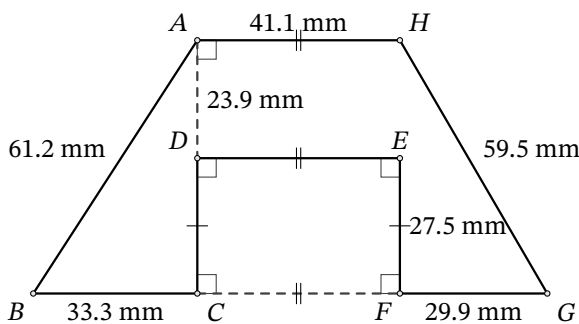
Area

$$\begin{aligned} & (\text{Area of } ABCE) + (\text{Area of } CFHE) \\ &= (3.6 \times 13.1) + (13.1 \times 4.1) \\ &= 47.16 + 53.71 \\ &= 100.9 \text{ mi}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CF + FH + HE + EA \\ &= 13.1 + 3.6 + 6.5 + 13.1 + 6.5 + 3.6 \\ &= 46.4 \text{ mi} \end{aligned}$$

3.



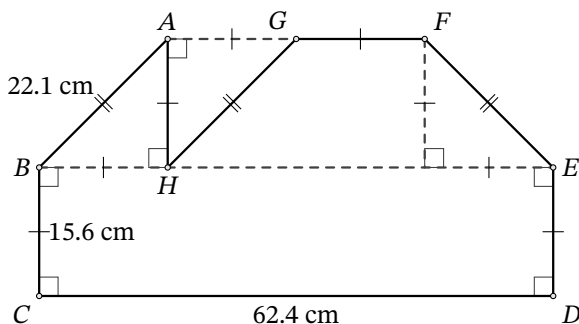
Area

$$\begin{aligned} & (\text{Area of } ABGH) - (\text{Area of } CFED) \\ &= \left(\frac{41.1+104.3}{2} \times 51.4 \right) - (27.5 \times 41.1) \\ &= 3736.78 - 1130.25 \\ &= 2606.5 \text{ mm}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GH + HA \\ &= 61.2 + 33.3 + 27.5 + 41.1 + 27.5 + 29.9 + 59.5 + 41.1 \\ &= 321.1 \text{ mm} \end{aligned}$$

4.



Area

$$\begin{aligned} & (\text{Area of } BCDE) + (\text{Area of } ABEF) - (\text{Area of } AHG) \\ &= (15.6 \times 62.4) + \left(\frac{62.4+31.2}{2} \times 15.6 \right) - \left(\frac{15.6 \times 15.6}{2} \right) \\ &= 973.44 + 730.08 - 121.68 \\ &= 1581.8 \text{ cm}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GH + HA \\ &= 22.1 + 15.6 + 62.4 + 15.6 + 22.1 + 15.6 + 22.1 + 15.6 \\ &= 191.1 \text{ cm} \end{aligned}$$