

# Area and Perimeter of Composite Shapes (H)

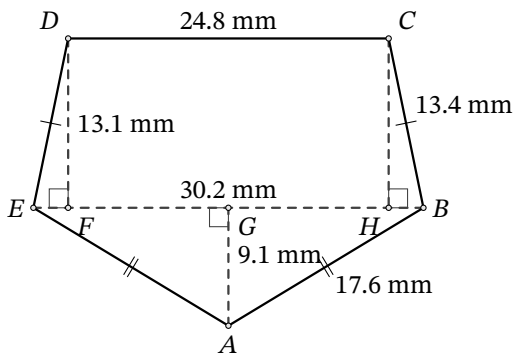
Name: \_\_\_\_\_

Date: \_\_\_\_\_

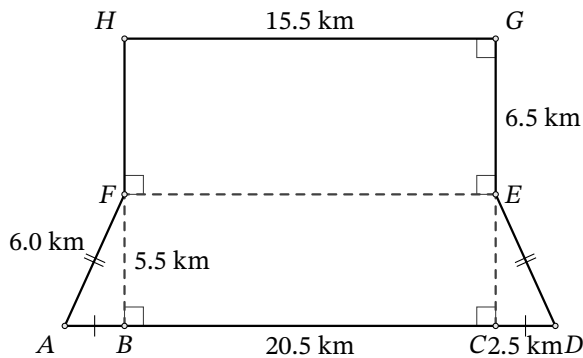
Score: \_\_\_\_\_

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

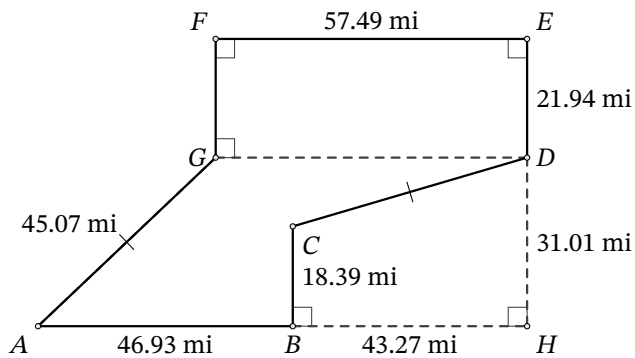
1.



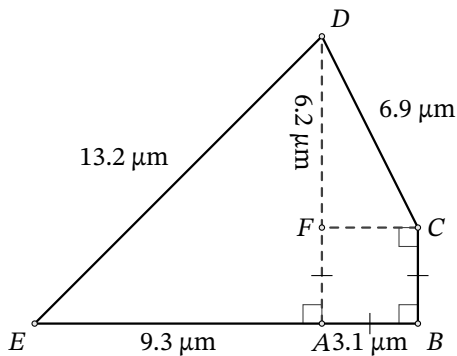
2.



3.



4.



# Area and Perimeter of Composite Shapes (H) Answers

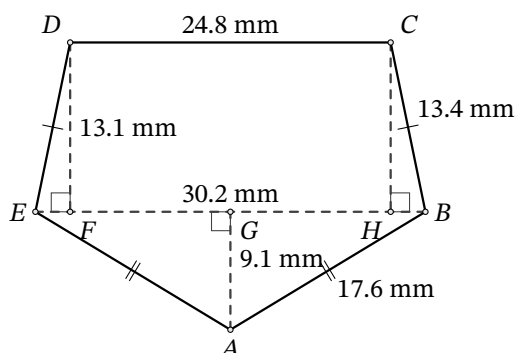
Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_

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

1.



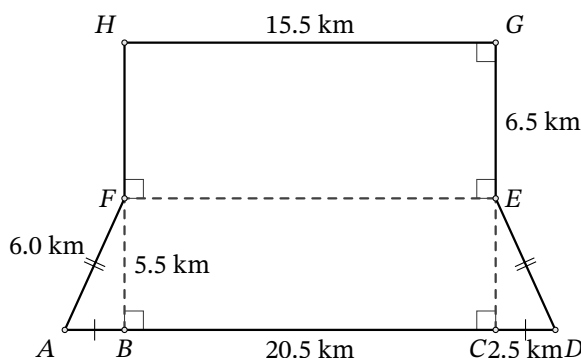
**Area**

$$\begin{aligned} & (\text{Area of } ABE) + (\text{Area of } BCDE) \\ &= \left( \frac{30.2 \times 9.1}{2} \right) + \left( \frac{30.2 + 24.8}{2} \times 13.1 \right) \\ &= 137.41 + 360.25 \\ &= 497.7 \text{ mm}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EA \\ &= 17.6 + 13.4 + 24.8 + 13.4 + 17.6 \\ &= 86.8 \text{ mm} \end{aligned}$$

2.



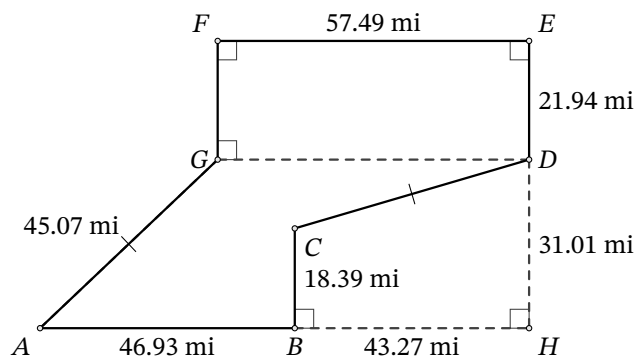
**Area**

$$\begin{aligned} & (\text{Area of } ADEF) + (\text{Area of } EGHF) \\ &= \left( \frac{20.5 + 15.5}{2} \times 5.5 \right) + (6.5 \times 15.5) \\ &= 99.0 + 100.75 \\ &= 199.8 \text{ km}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AD + DE + EG + GH + HF + FA \\ &= 20.5 + 6.0 + 6.5 + 15.5 + 6.5 + 6.0 \\ &= 61.0 \text{ km} \end{aligned}$$

3.



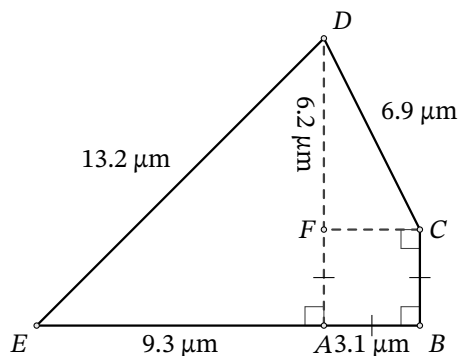
**Area**

$$\begin{aligned} & (\text{Area of } AHFG) - (\text{Area of } BHDC) + (\text{Area of } DEFG) \\ &= \left( \frac{90.20 + 57.49}{2} \times 31.01 \right) - \left( \frac{18.39 + 31.01}{2} \times 43.27 \right) + \\ & \quad (21.94 \times 57.49) \\ &= 2289.93345 - 1068.769 + 1261.3306 \\ &= 2482.50 \text{ mi}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GA \\ &= 46.93 + 18.39 + 45.07 + 21.94 + 57.49 + 21.94 + 45.07 \\ &= 256.83 \text{ mi} \end{aligned}$$

4.



**Area**

$$\begin{aligned} & (\text{Area of } ADE) + (\text{Area of } ABCD) \\ &= \left( \frac{9.3 \times 9.3}{2} \right) + \left( \frac{9.3 + 3.1}{2} \times 3.1 \right) \\ &= 43.245 + 19.22 \\ &= 62.5 \text{ μm}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= BC + CD + DE + EB \\ &= 3.1 + 6.9 + 13.2 + 12.4 \\ &= 35.6 \text{ μm} \end{aligned}$$