

Area and Perimeter of Composite Shapes (D)

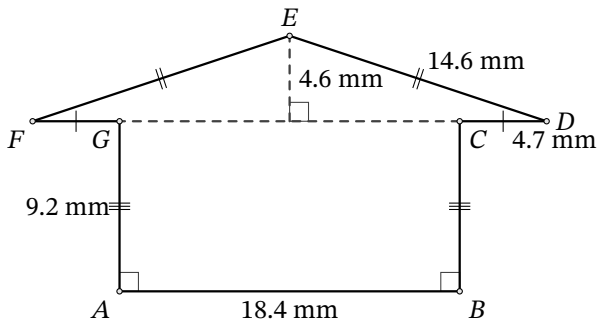
Name: _____

Date: _____

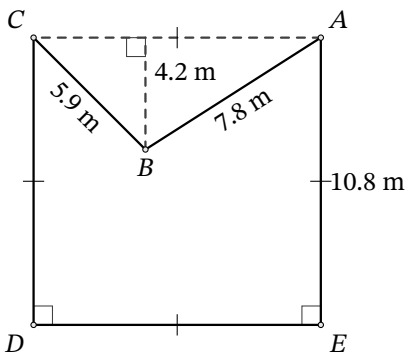
Score: _____

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

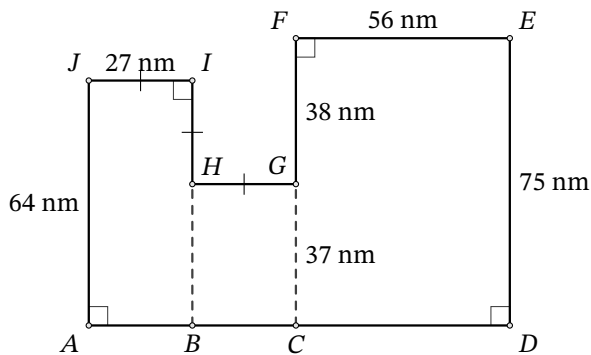
1.



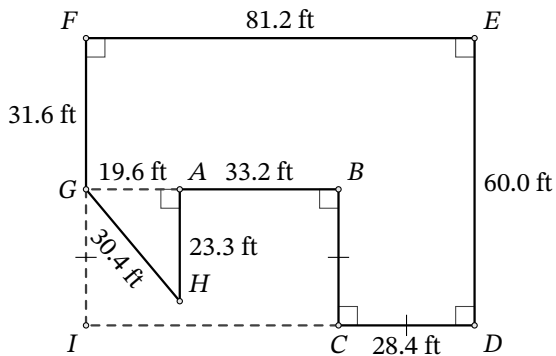
2.



3.



4.



Area and Perimeter of Composite Shapes (D) Answers

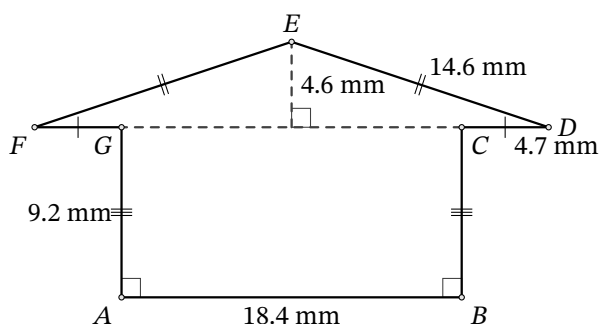
Name: _____

Date: _____

Score: _____

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

1.



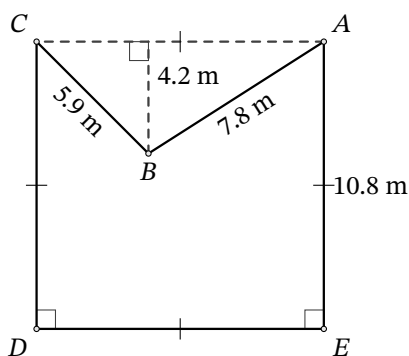
Area

$$\begin{aligned} & (\text{Area of } ABCG) + (\text{Area of } DEF) \\ &= (9.2 \times 18.4) + \left(\frac{27.8 \times 4.6}{2} \right) \\ &= 169.28 + 63.94 \\ &= 233.2 \text{ mm}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GA \\ &= 18.4 + 9.2 + 4.7 + 14.6 + 14.6 + 4.7 + 9.2 \\ &= 75.4 \text{ mm} \end{aligned}$$

2.



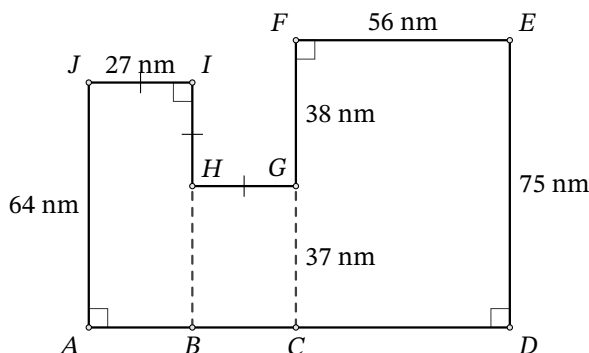
Area

$$\begin{aligned} & (\text{Area of } ACDE) - (\text{Area of } ACB) \\ &= (10.8^2) - \left(\frac{10.8 \times 4.2}{2} \right) \\ &= 116.64 - 22.68 \\ &= 94.0 \text{ m}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EA \\ &= 7.8 + 5.9 + 10.8 + 10.8 + 10.8 \\ &= 46.1 \text{ m} \end{aligned}$$

3.



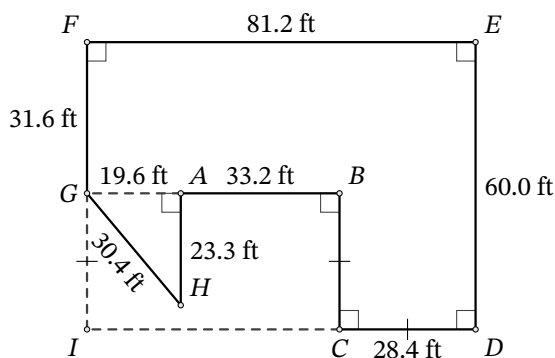
Area

$$\begin{aligned} & (\text{Area of } ABIJ) + (\text{Area of } BCGH) + (\text{Area of } CDEF) \\ &= (64 \times 27) + (37 \times 27) + (75 \times 56) \\ &= 1728 + 999 + 4200 \\ &= 6927 \text{ nm}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AD + DE + EF + FG + GH + HI + IJ + JA \\ &= 110 + 75 + 56 + 38 + 27 + 27 + 27 + 64 \\ &= 424 \text{ nm} \end{aligned}$$

4.



Area

$$\begin{aligned} & (\text{Area of } FEDE) - (\text{Area of } BCGH) + (\text{Area of } AGH) \\ &= (60.0 \times 81.2) - (28.4 \times 52.8) + \left(\frac{19.6 \times 23.3}{2} \right) \\ &= 4872 - 1499.52 + 228.34 \\ &= 3600.8 \text{ ft}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GH + HA \\ &= 33.2 + 28.4 + 28.4 + 60.0 + 81.2 + 31.6 + 30.4 + 23.3 \\ &= 316.5 \text{ ft} \end{aligned}$$