

Area and Perimeter of Composite Shapes (J)

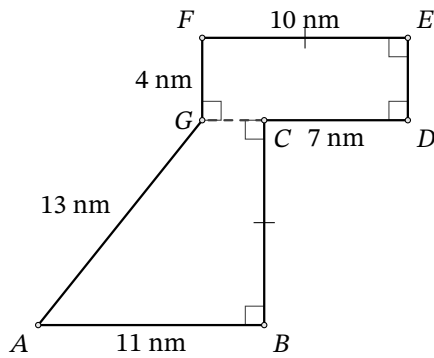
Name: _____

Date: _____

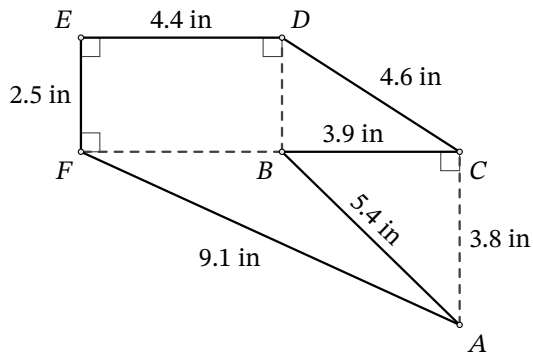
Score: _____

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

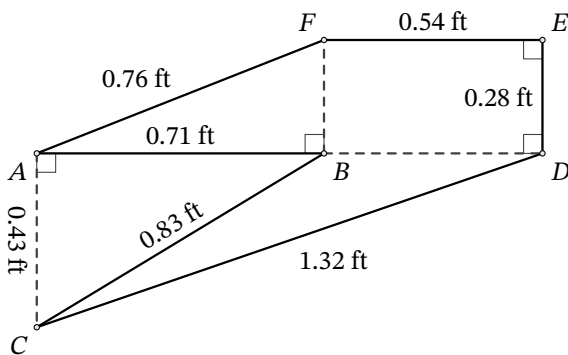
1.



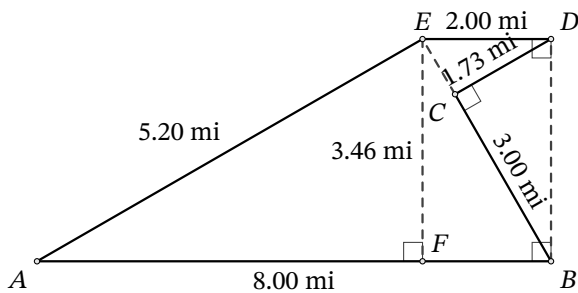
2.



3.



4.



Area and Perimeter of Composite Shapes (J) Answers

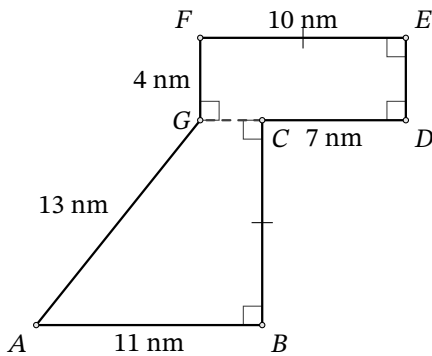
Name: _____

Date: _____

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

1.



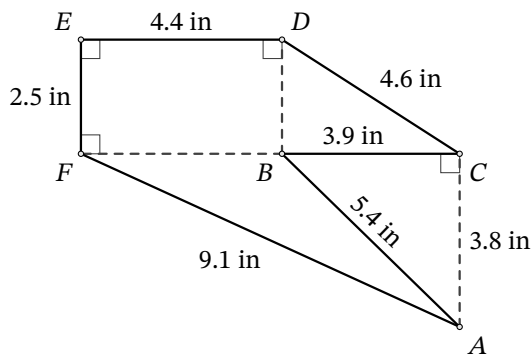
Area

$$\begin{aligned} & (\text{Area of } ABCG) + (\text{Area of } DEFG) \\ &= \left(\frac{11+3}{2} \times 10 \right) + (4 \times 10) \\ &= 70 + 40 \\ &= 110 \text{ nm}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GA \\ &= 11 + 10 + 7 + 4 + 10 + 4 + 13 \\ &= 59 \text{ nm} \end{aligned}$$

2.



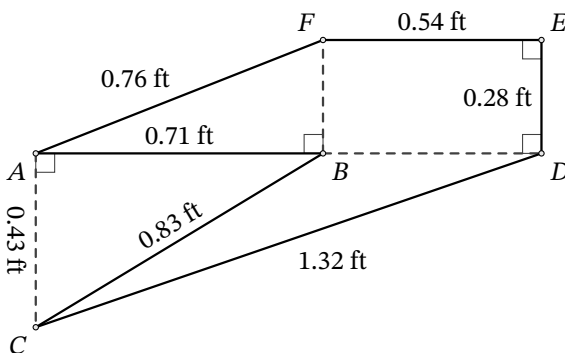
Area

$$\begin{aligned} & (\text{Area of } ABF) + (\text{Area of } CDEF) \\ &= \left(\frac{4.4 \times 3.8}{2} \right) + \left(\frac{8.3+4.4}{2} \times 2.5 \right) \\ &= 8.36 + 15.875 \\ &= 24.2 \text{ in}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EF + FA \\ &= 5.4 + 3.9 + 4.6 + 4.4 + 2.5 + 9.1 \\ &= 29.9 \text{ in} \end{aligned}$$

3.



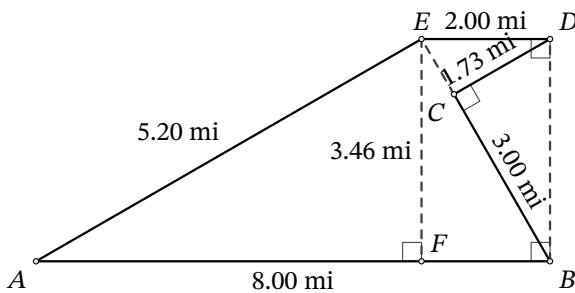
Area

$$\begin{aligned} & (\text{Area of } BCD) + (\text{Area of } ADEF) \\ &= \left(\frac{0.54 \times 0.43}{2} \right) + \left(\frac{1.25+0.54}{2} \times 0.28 \right) \\ &= 0.1161 + 0.2506 \\ &= 0.37 \text{ ft}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EF + FA \\ &= 0.71 + 0.83 + 1.32 + 0.28 + 0.54 + 0.76 \\ &= 4.44 \text{ ft} \end{aligned}$$

4.



Area

$$\begin{aligned} & (\text{Area of } ABDE) - (\text{Area of } BDC) \\ &= \left(\frac{8.00+2.00}{2} \times 3.46 \right) - \left(\frac{3.00 \times 1.73}{2} \right) \\ &= 17.30 - 2.595 \\ &= 14.71 \text{ mi}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EA \\ &= 8.00 + 3.00 + 1.73 + 2.00 + 5.20 \\ &= 19.93 \text{ mi} \end{aligned}$$