

Area and Perimeter of Composite Shapes (E)

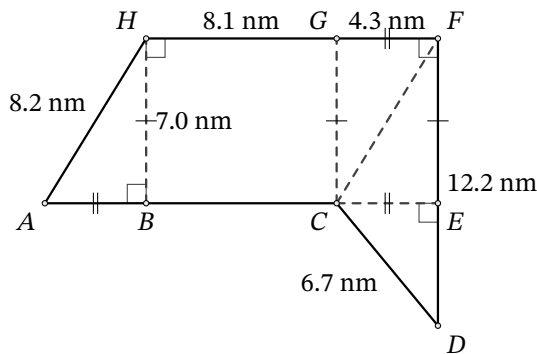
Name: _____

Date: _____

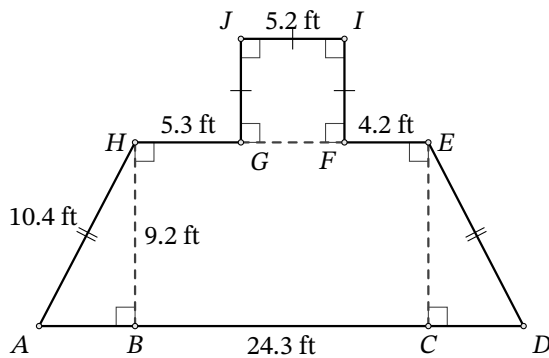
Score: _____

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

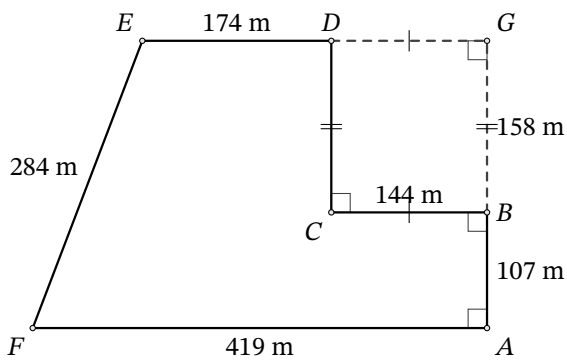
1.



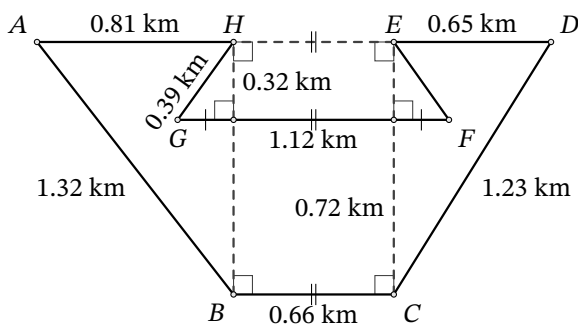
2.



3.



4.



Area and Perimeter of Composite Shapes (E) Answers

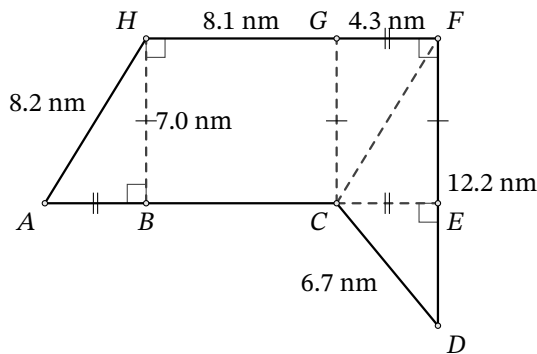
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Calculate the area and perimeter of each figure. Round to the number of decimals in the measurements.

1.



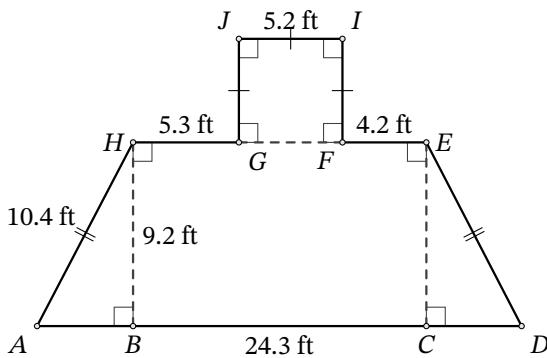
Area

$$\begin{aligned} & (\text{Area of } ACFH) + (\text{Area of } CDE) \\ &= (12.4 \times 7.0) + \left(\frac{12.2 \times 4.3}{2}\right) \\ &= 86.8 + 26.23 \\ &= 113.0 \text{ nm}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AC + CD + DE + EF + FH + HA \\ &= 12.4 + 6.7 + 12.2 + 12.4 + 8.2 \\ &= 51.9 \text{ nm} \end{aligned}$$

2.



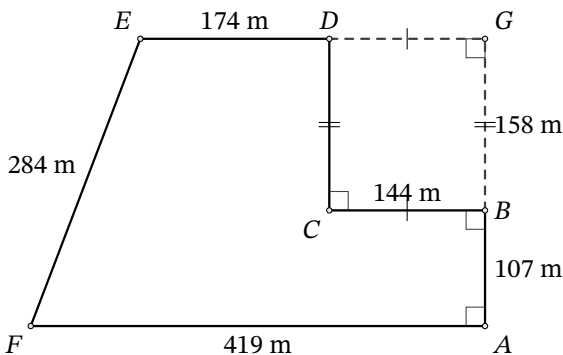
Area

$$\begin{aligned} & (\text{Area of } ADEH) + (\text{Area of } FIJG) \\ &= \left(\frac{24.3+14.7}{2} \times 9.2\right) + (5.2^2) \\ &= 179.4 + 27.04 \\ &= 206.4 \text{ ft}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AD + DE + EF + FI + IJ + JG + GH + HA \\ &= 24.3 + 10.4 + 4.2 + 5.2 + 5.2 + 5.2 + 5.3 + 10.4 \\ &= 70.2 \text{ ft} \end{aligned}$$

3.



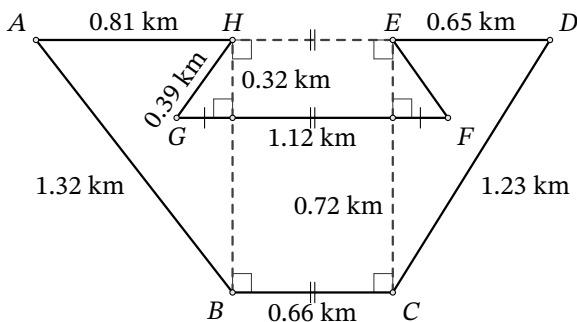
Area

$$\begin{aligned} & (\text{Area of } AGEF) - (\text{Area of } BGDC) \\ &= \left(\frac{419+318}{2} \times 265\right) - (158 \times 144) \\ &= 97,652.5 - 22,752 \\ &= 74,901 \text{ m}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EF + FA \\ &= 107 + 144 + 158 + 174 + 284 + 419 \\ &= 1286 \text{ m} \end{aligned}$$

4.



Area

$$\begin{aligned} & (\text{Area of } ABCD) - (\text{Area of } EHGF) \\ &= \left(\frac{2.12+0.66}{2} \times 1.04\right) - \left(\frac{0.66+1.12}{2} \times 0.32\right) \\ &= 1.4456 - 0.2848 \\ &= 1.16 \text{ km}^2 \end{aligned}$$

Perimeter

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GH + HA \\ &= 1.32 + 0.66 + 1.23 + 0.65 + 0.39 + 1.12 + 0.39 + 0.81 \\ &= 6.57 \text{ km} \end{aligned}$$