

# Area and Perimeter of Composite Shapes (A)

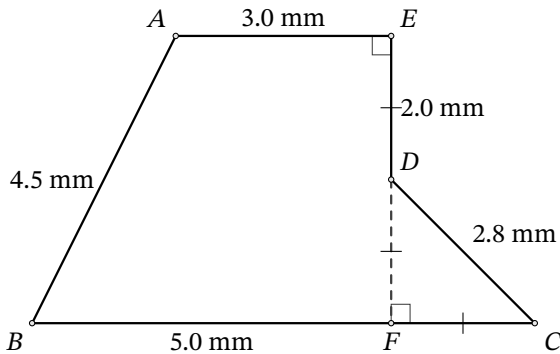
Name: \_\_\_\_\_

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

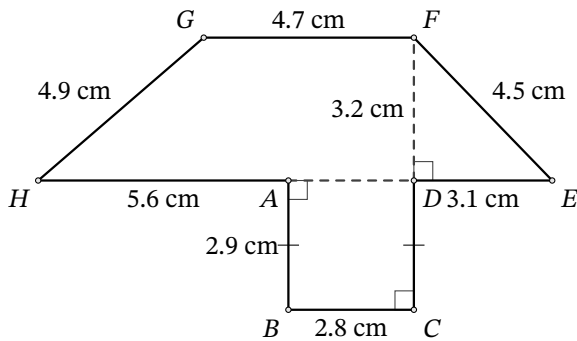
Score: \_\_\_\_\_

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

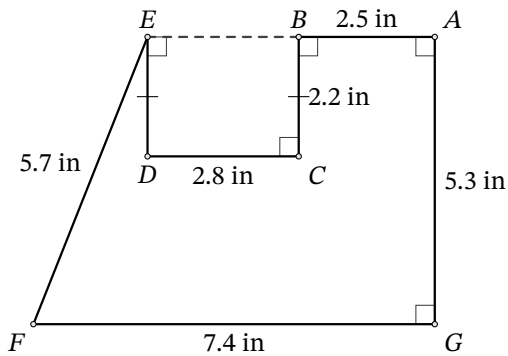
1.



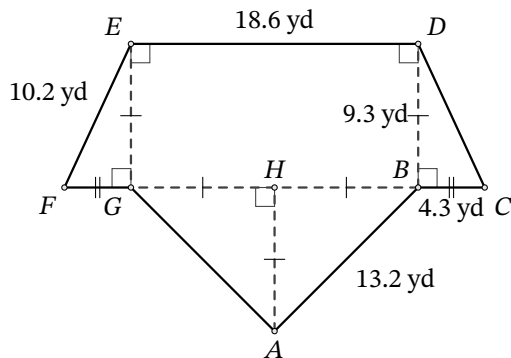
2.



3.



4.



# Area and Perimeter of Composite Shapes (A) Answers

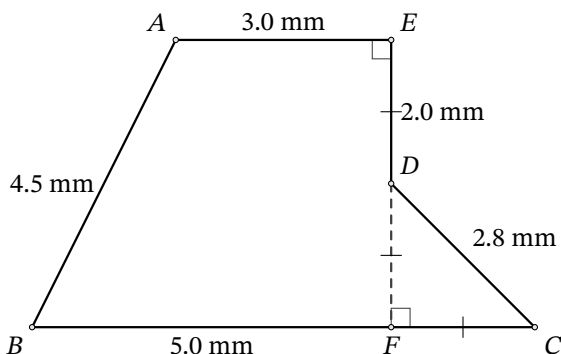
Name: \_\_\_\_\_

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

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

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

1.



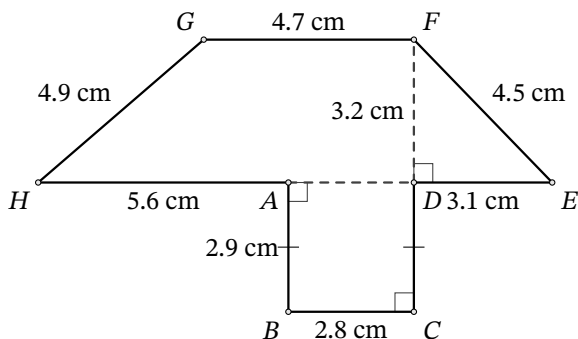
**Area**

$$\begin{aligned} & (\text{Area of } ABFE) + (\text{Area of } CDF) \\ &= \left( \frac{3.0+5.0}{2} \times 4.0 \right) + \left( \frac{2.0 \times 2.0}{2} \right) \\ &= 16.0 + 2.0 \\ &= 18.0 \text{ mm}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EA \\ &= 4.5 + 7.0 + 2.8 + 2.0 + 3.0 \\ &= 19.3 \text{ mm} \end{aligned}$$

2.



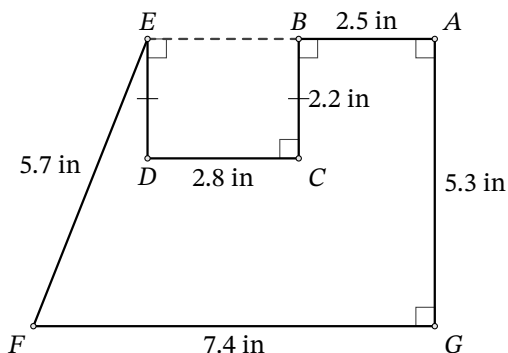
**Area**

$$\begin{aligned} & (\text{Area of } ABCD) + (\text{Area of } EFGH) \\ &= (2.9 \times 2.8) + \left( \frac{11.5+4.7}{2} \times 3.2 \right) \\ &= 8.12 + 25.92 \\ &= 34.0 \text{ cm}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GH + HA \\ &= 2.9 + 2.8 + 2.9 + 3.1 + 4.5 + 4.7 + 4.9 + 5.6 \\ &= 31.4 \text{ cm} \end{aligned}$$

3.



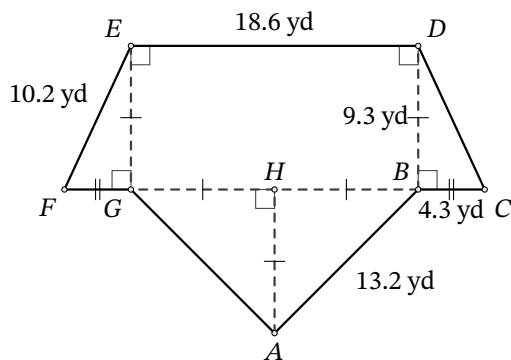
**Area**

$$\begin{aligned} & (\text{Area of } AEFB) - (\text{Area of } BDC) \\ &= \left( \frac{7.4+5.3}{2} \times 5.3 \right) - (2.2 \times 2.8) \\ &= 33.655 - 6.16 \\ &= 27.5 \text{ in}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GA \\ &= 2.5 + 2.2 + 2.8 + 2.2 + 5.7 + 7.4 + 5.3 \\ &= 28.1 \text{ in} \end{aligned}$$

4.



**Area**

$$\begin{aligned} & (\text{Area of } ABG) + (\text{Area of } CDEF) \\ &= \left( \frac{18.6 \times 9.3}{2} \right) + \left( \frac{27.2+18.6}{2} \times 9.3 \right) \\ &= 212.97 + 86.49 \\ &= 299.5 \text{ yd}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GA \\ &= 13.2 + 4.3 + 10.2 + 18.6 + 10.2 + 4.3 + 13.2 \\ &= 74.0 \text{ yd} \end{aligned}$$

# Area and Perimeter of Composite Shapes (B)

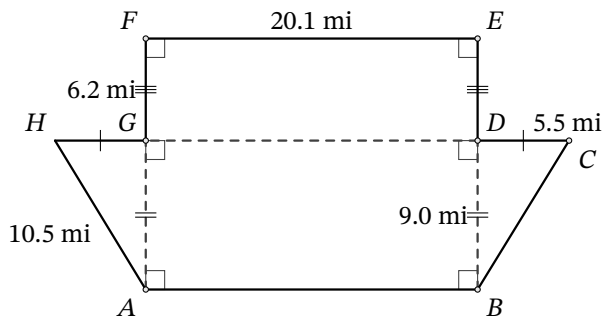
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Date: \_\_\_\_\_

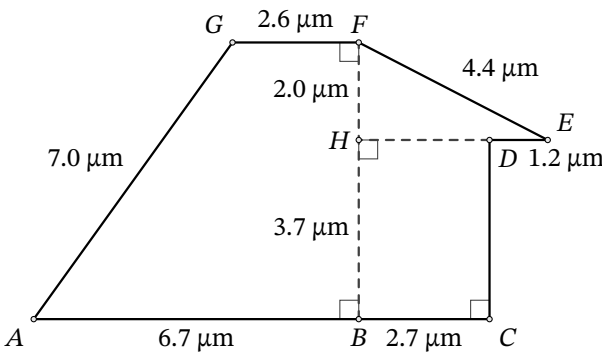
Score: \_\_\_\_\_

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

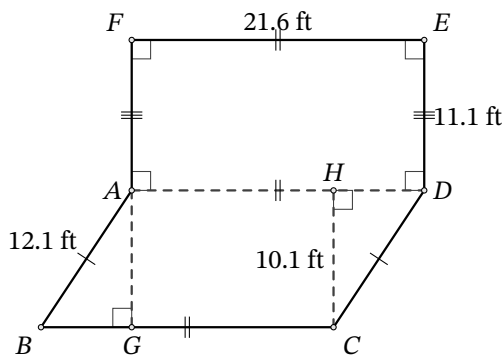
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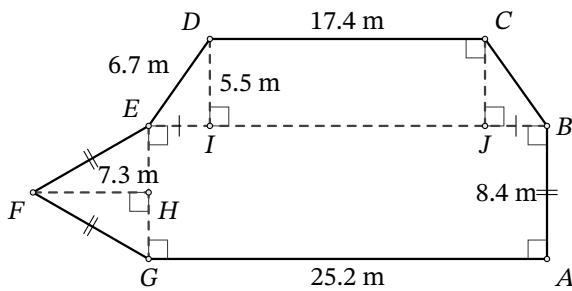
2.



3.



4.



# Area and Perimeter of Composite Shapes (B) Answers

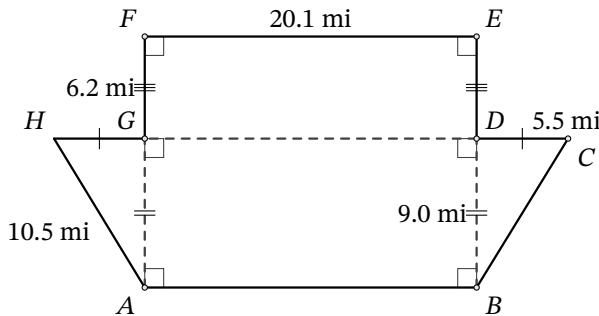
Name: \_\_\_\_\_

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

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

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

1.



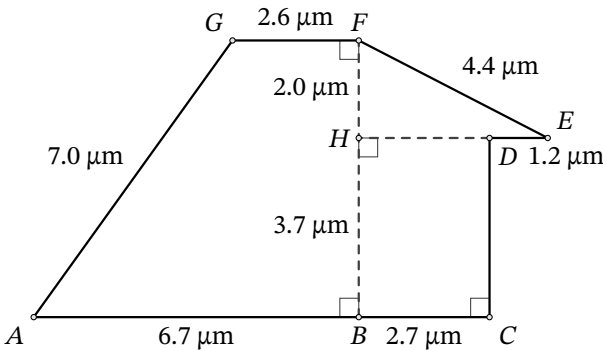
**Area**

$$\begin{aligned} & (\text{Area of } ABCH) + (\text{Area of } DEFG) \\ &= \left( \frac{31.1+20.1}{2} \times 9.0 \right) + (6.2 \times 20.1) \\ &= 230.4^2 + 124.62 \\ &= 355.0 \text{ mi}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GH + HA \\ &= 20.1 + 10.5 + 5.5 + 6.2 + 20.1 + 6.2 + 5.5 + 10.5 \\ &= 84.6 \text{ mi} \end{aligned}$$

2.



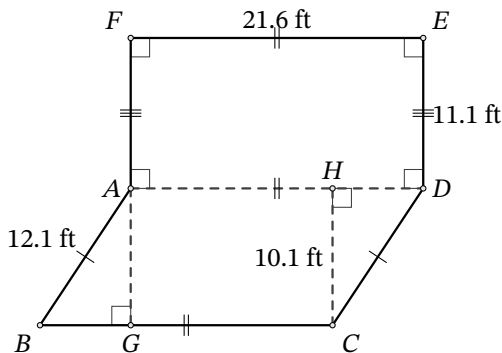
**Area**

$$\begin{aligned} & (\text{Area of } ABFG) + (\text{Area of } BCDH) + (\text{Area of } EFH) \\ &= \left( \frac{2.6+6.7}{2} \times 5.7 \right) + (3.7 \times 2.7) + \left( \frac{3.9 \times 2.0}{2} \right) \\ &= 26.505 + 9.99 + 3.9 \\ &= 40.4 \text{ μm}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AC + CD + DE + EF + FG + GA \\ &= 9.4 + 3.7 + 1.2 + 4.4 + 2.6 + 7.0 \\ &= 28.3 \text{ μm} \end{aligned}$$

3.



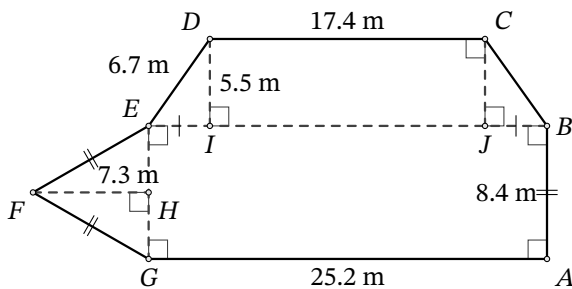
**Area**

$$\begin{aligned} & (\text{Area of } ABCD) + (\text{Area of } ADEF) \\ &= (21.6 \times 10.1) + (11.1 \times 21.6) \\ &= 218.16 + 239.76 \\ &= 457.9 \text{ ft}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EF + FA \\ &= 12.1 + 21.6 + 12.1 + 11.1 + 21.6 + 11.1 \\ &= 89.6 \text{ ft} \end{aligned}$$

4.



**Area**

$$\begin{aligned} & (\text{Area of } EFG) + (\text{Area of } ABEG) + (\text{Area of } BCDE) \\ &= \left( \frac{8.4 \times 7.3}{2} \right) + (8.4 \times 25.2) + \left( \frac{25.2+17.4}{2} \times 5.5 \right) \\ &= 30.66 + 211.68 + 117.15 \\ &= 359.5 \text{ m}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GA \\ &= 8.4 + 6.7 + 17.4 + 6.7 + 8.4 + 8.4 + 25.2 \\ &= 81.2 \text{ m} \end{aligned}$$

# Area and Perimeter of Composite Shapes (C)

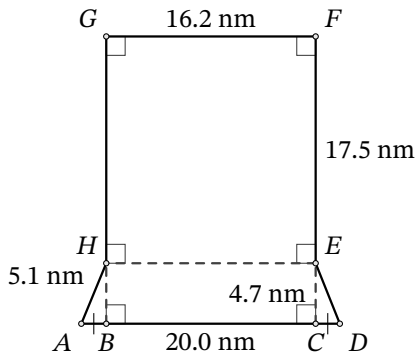
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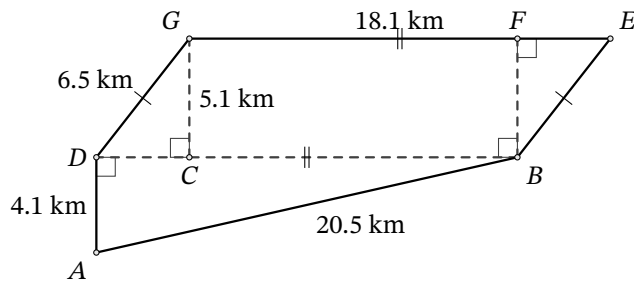
Score: \_\_\_\_\_

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

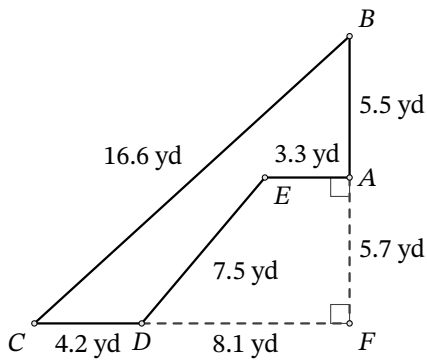
1.



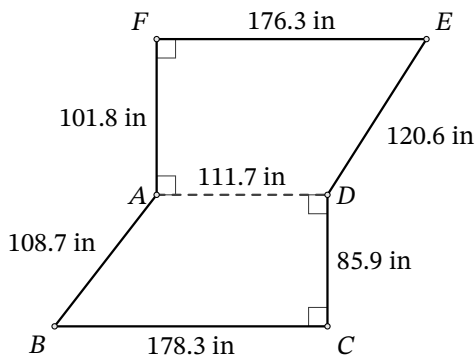
2.



3.



4.



# Area and Perimeter of Composite Shapes (C) Answers

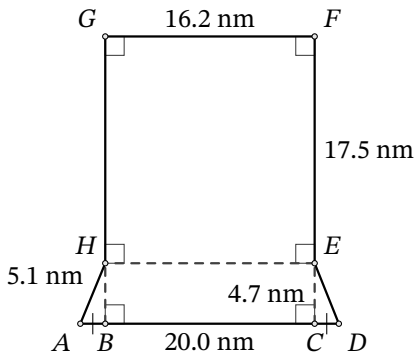
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Date: \_\_\_\_\_

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

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

1.



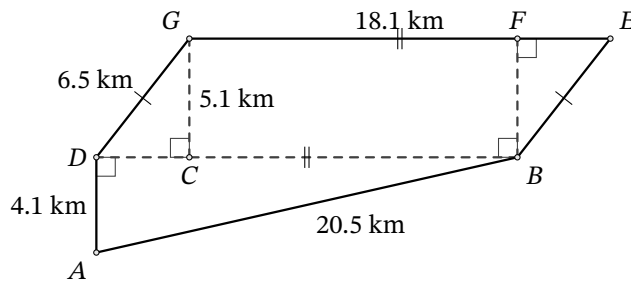
**Area**

$$\begin{aligned} & (\text{Area of } ADEH) + (\text{Area of } EFGH) \\ &= \left( \frac{20.0+16.2}{2} \times 4.7 \right) + (17.5 \times 16.2) \\ &= 85.07 + 283.5 \\ &= 368.6 \text{ nm}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AD + DE + EF + FG + GH + HA \\ &= 20.0 + 5.1 + 17.5 + 16.2 + 17.5 + 5.1 \\ &= 81.4 \text{ nm} \end{aligned}$$

2.



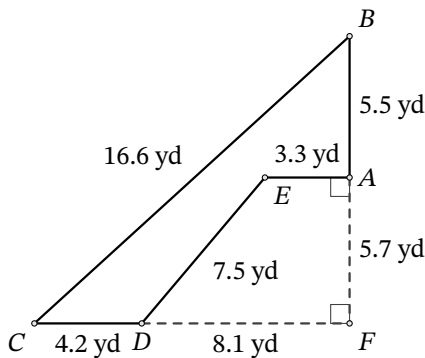
**Area**

$$\begin{aligned} & (\text{Area of } ABD) + (\text{Area of } BEGD) \\ &= \left( \frac{18.1 \times 4.1}{2} \right) + (18.1 \times 5.1) \\ &= 37.105 + 92.31 \\ &= 129.4 \text{ km}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BE + EG + GD + DA \\ &= 20.5 + 6.5 + 18.1 + 6.5 + 4.1 \\ &= 55.7 \text{ km} \end{aligned}$$

3.



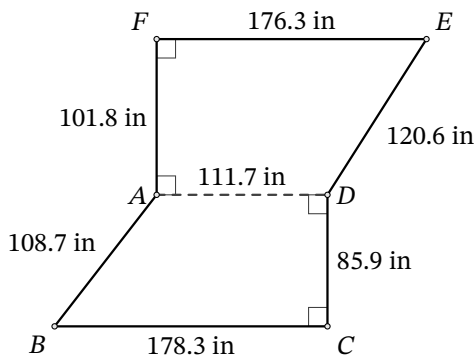
**Area**

$$\begin{aligned} & (\text{Area of } BCF) - (\text{Area of } AEDF) \\ &= \left( \frac{12.3 \times 11.2}{2} \right) - \left( \frac{8.1+3.3}{2} \times 5.7 \right) \\ &= 68.88 - 32.49 \\ &= 36.4 \text{ yd}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EA \\ &= 5.5 + 16.6 + 4.2 + 7.5 + 3.3 \\ &= 37.1 \text{ yd} \end{aligned}$$

4.



**Area**

$$\begin{aligned} & (\text{Area of } ABCD) + (\text{Area of } ADEF) \\ &= \left( \frac{178.3+111.7}{2} \times 85.9 \right) + \left( \frac{176.3+111.7}{2} \times 101.8 \right) \\ &= 12,455.5 + 14,659.2 \\ &= 27,114.7 \text{ in}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EF + FA \\ &= 108.7 + 178.3 + 85.9 + 120.6 + 176.3 + 101.8 \\ &= 771.6 \text{ in} \end{aligned}$$

# Area and Perimeter of Composite Shapes (D)

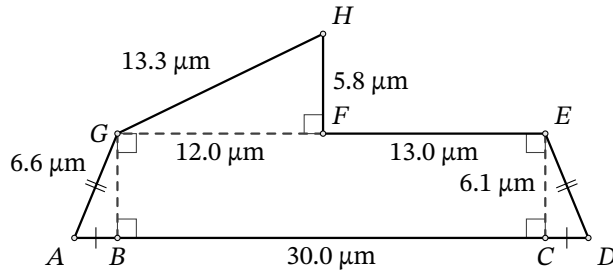
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Date: \_\_\_\_\_

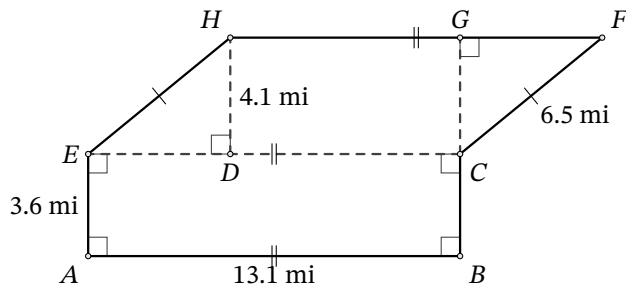
Score: \_\_\_\_\_

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

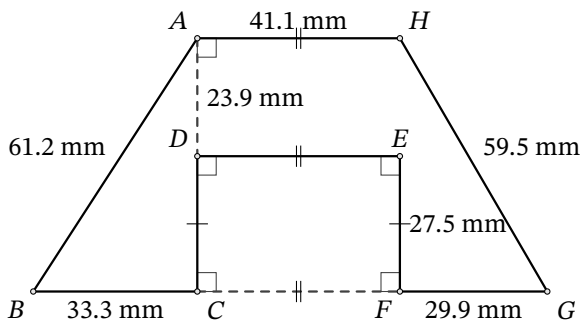
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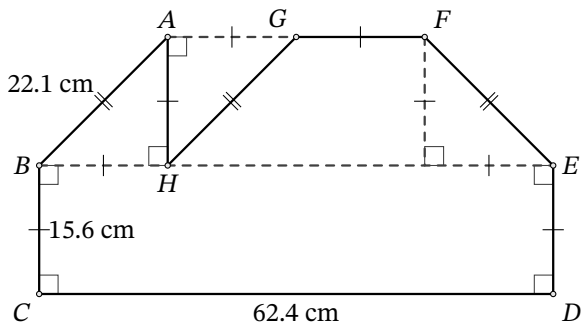
2.



3.



4.



# Area and Perimeter of Composite Shapes (D) Answers

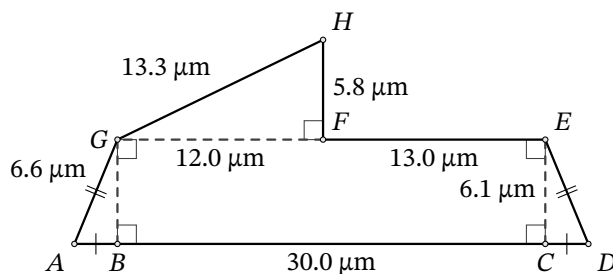
Name: \_\_\_\_\_

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

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

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

1.



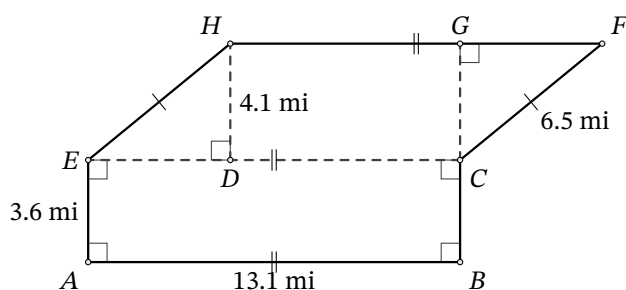
**Area**

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

**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.



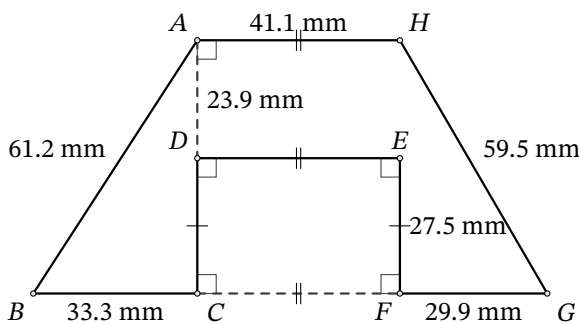
**Area**

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

**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.



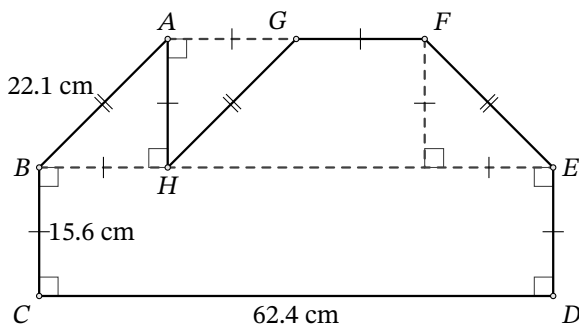
**Area**

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

**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**

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

**Perimeter**

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



# Area and Perimeter of Composite Shapes (E)

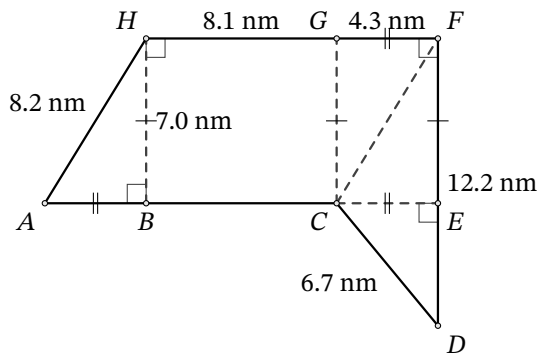
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Date: \_\_\_\_\_

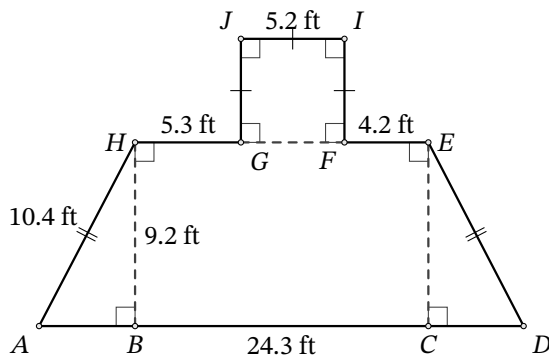
Score: \_\_\_\_\_

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

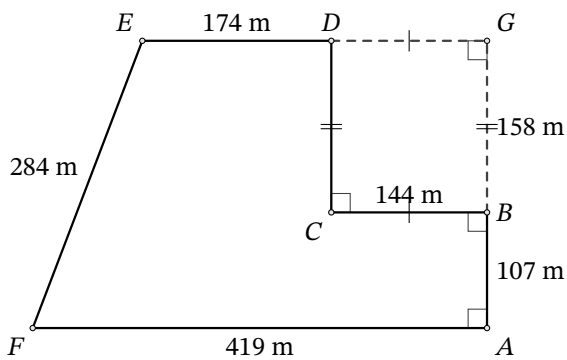
1.



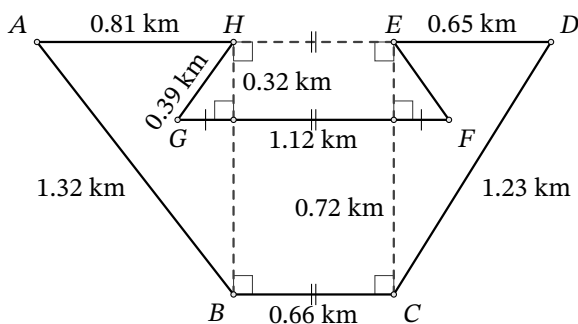
2.



3.



4.



# Area and Perimeter of Composite Shapes (E) Answers

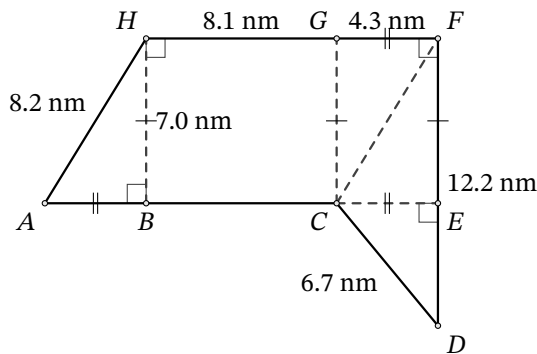
Name: \_\_\_\_\_

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

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

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

1.



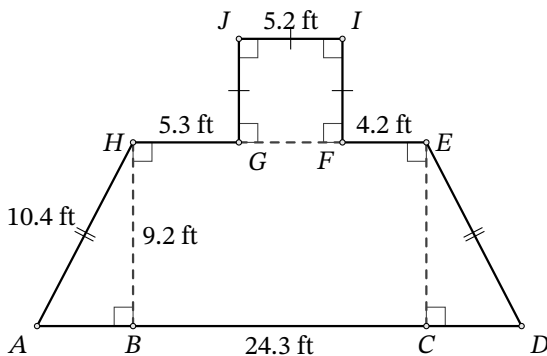
**Area**

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

**Perimeter**

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

2.



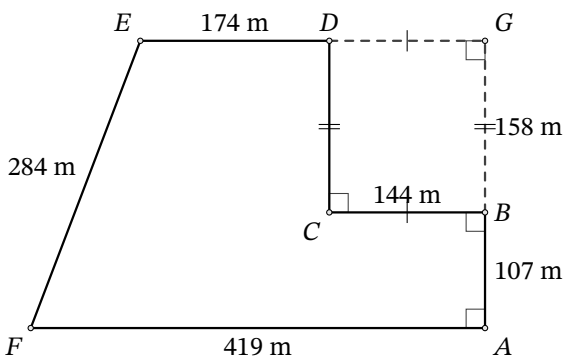
**Area**

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

**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.



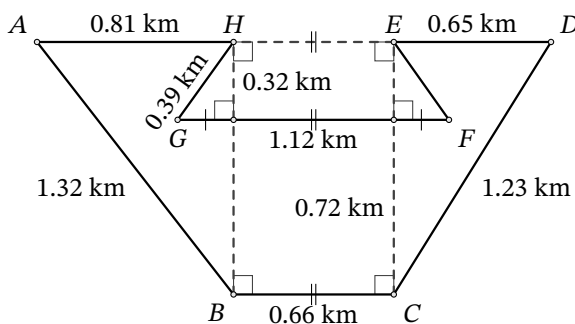
**Area**

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

**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**

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

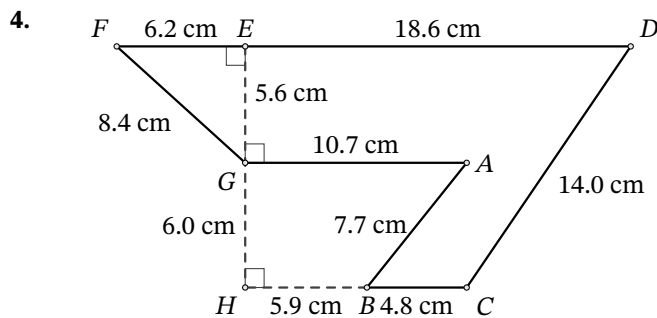
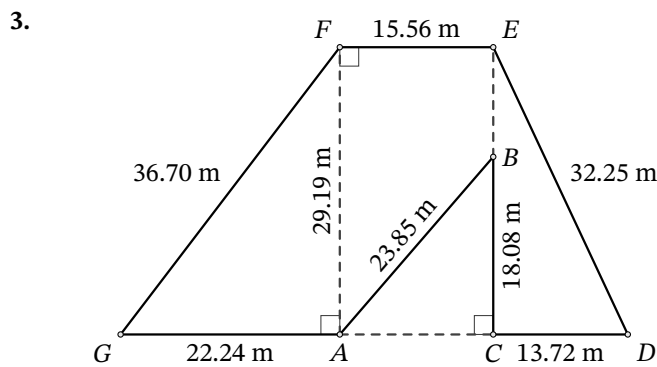
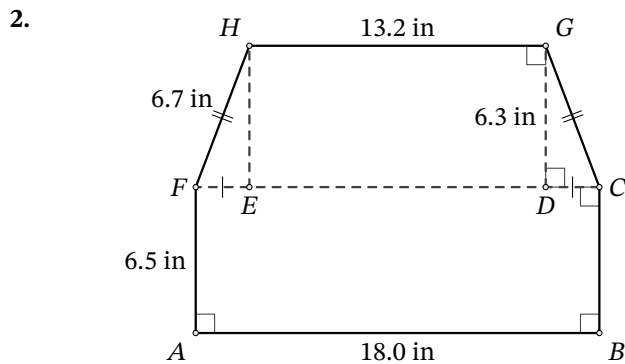
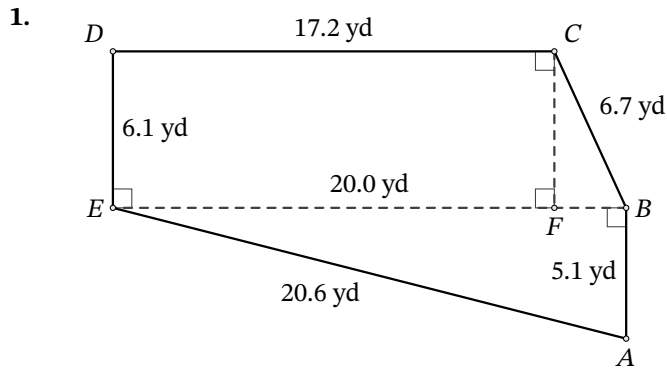
# Area and Perimeter of Composite Shapes (F)

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

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

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

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



# Area and Perimeter of Composite Shapes (F) Answers

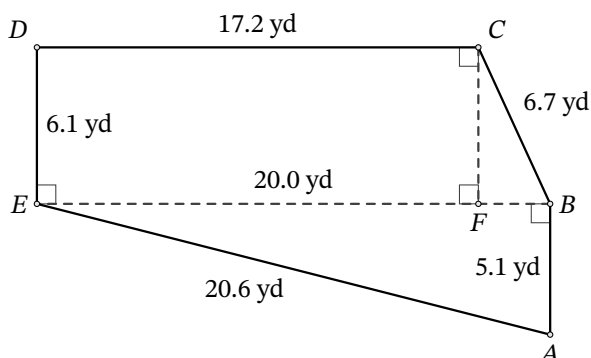
Name: \_\_\_\_\_

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

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

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

1.



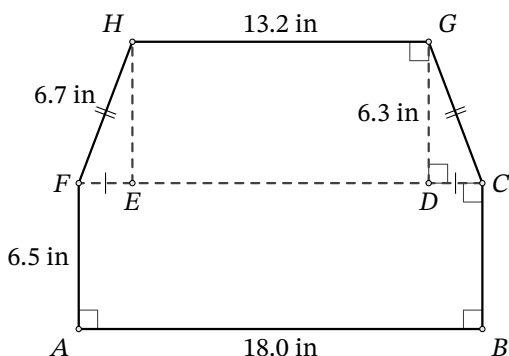
**Area**

$$\begin{aligned} & (\text{Area of } ABE) + (\text{Area of } BCDE) \\ &= \left(\frac{20.0 \times 5.1}{2}\right) + \left(\frac{17.2 + 20.0}{2} \times 6.1\right) \\ &= 51.0 + 113.46 \\ &= 164.5 \text{ yd}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EA \\ &= 5.1 + 6.7 + 17.2 + 6.1 + 20.6 \\ &= 55.7 \text{ yd} \end{aligned}$$

2.



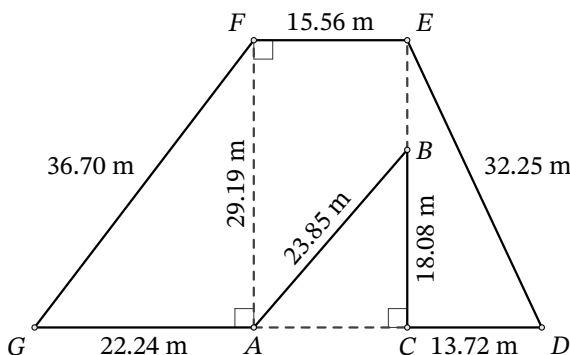
**Area**

$$\begin{aligned} & (\text{Area of } ABCF) + (\text{Area of } CGHF) \\ &= (6.5 \times 18.0) + \left(\frac{18.0 + 13.2}{2} \times 6.3\right) \\ &= 117.0 + 98.28 \\ &= 215.3 \text{ in}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CG + GH + HF + FA \\ &= 18.0 + 6.5 + 6.7 + 13.2 + 6.7 + 6.5 \\ &= 57.6 \text{ in} \end{aligned}$$

3.



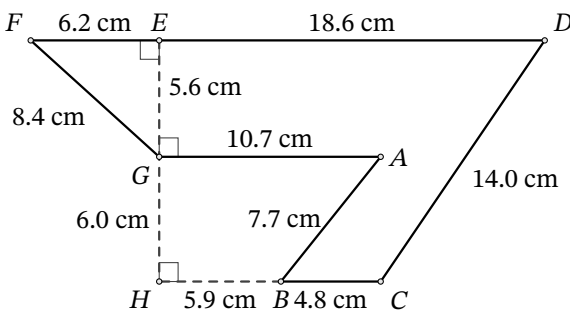
**Area**

$$\begin{aligned} & (\text{Area of } DEFG) - (\text{Area of } ACB) \\ &= \left(\frac{51.52 + 15.56}{2} \times 29.19\right) - \left(\frac{15.56 \times 18.08}{2}\right) \\ &= 979.0326 - 140.6624 \\ &= 838.37 \text{ m}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GA \\ &= 23.85 + 18.08 + 13.72 + 32.25 + 15.56 + 36.70 + 22.24 \\ &= 162.40 \text{ m} \end{aligned}$$

4.



**Area**

$$\begin{aligned} & (\text{Area of } CDEH) - (\text{Area of } AGHB) + (\text{Area of } EFG) \\ &= \left(\frac{18.6 + 10.7}{2} \times 11.6\right) - \left(\frac{10.7 + 5.9}{2} \times 6.0\right) + \left(\frac{6.2 \times 5.6}{2}\right) \\ &= 169.94 - 49.8 + 17.36 \\ &= 137.5 \text{ cm}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DF + FG + GA \\ &= 7.7 + 4.8 + 14.0 + 24.8 + 8.4 + 10.7 \\ &= 70.4 \text{ cm} \end{aligned}$$

# Area and Perimeter of Composite Shapes (G)

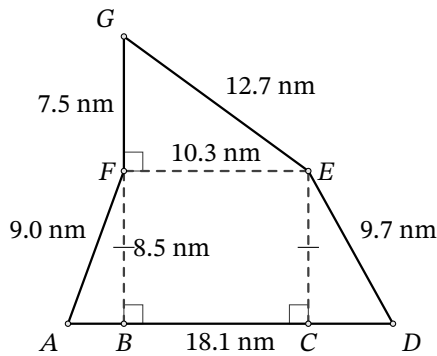
Name: \_\_\_\_\_

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

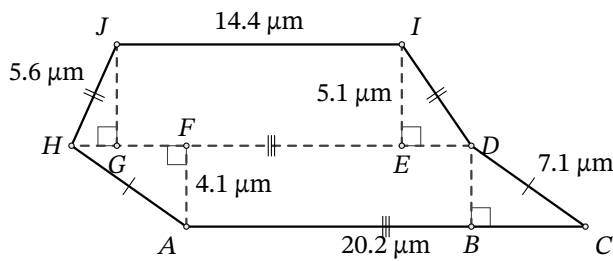
Score: \_\_\_\_\_

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

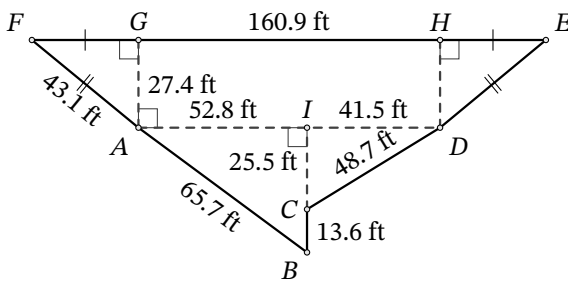
1.



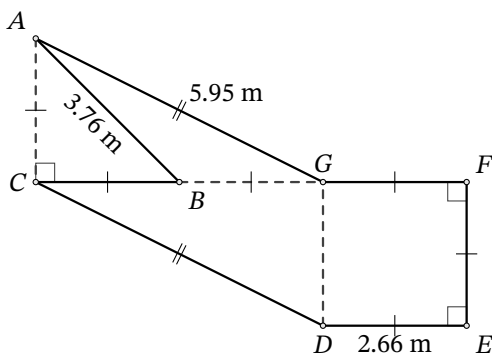
2.



3.



4.



# Area and Perimeter of Composite Shapes (G) Answers

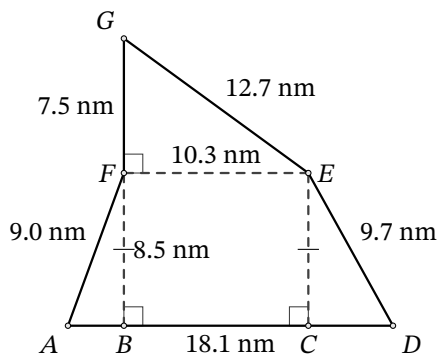
Name: \_\_\_\_\_

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

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

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

1.



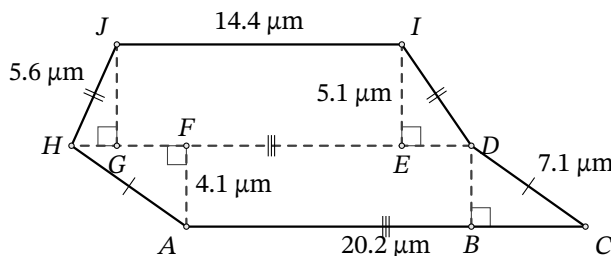
**Area**

$$\begin{aligned} & (\text{Area of } ADEF) + (\text{Area of } EFG) \\ &= \left( \frac{18.1+10.3}{2} \times 8.5 \right) + \left( \frac{10.3 \times 7.5}{2} \right) \\ &= 120.7 + 38.625 \\ &= 159.3 \text{ nm}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AD + DE + EG + GF + FA \\ &= 18.1 + 9.7 + 12.7 + 7.5 + 9.0 \\ &= 57.0 \text{ nm} \end{aligned}$$

2.



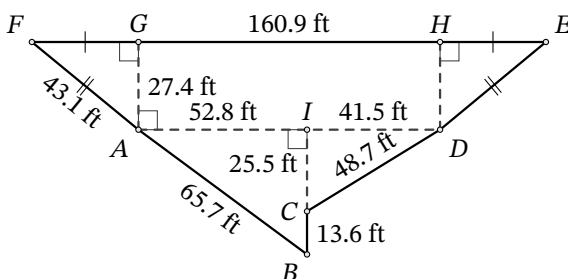
**Area**

$$\begin{aligned} & (\text{Area of } ACDE) + (\text{Area of } DIH) \\ &= (20.2 \times 4.1) + \left( \frac{20.2+14.4}{2} \times 5.1 \right) \\ &= 82.82 + 88.23 \\ &= 171.1 \text{ μm}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AC + CD + DI + IJ + JH + HA \\ &= 20.2 + 7.1 + 5.6 + 14.4 + 5.6 + 7.1 \\ &= 60.0 \text{ μm} \end{aligned}$$

3.



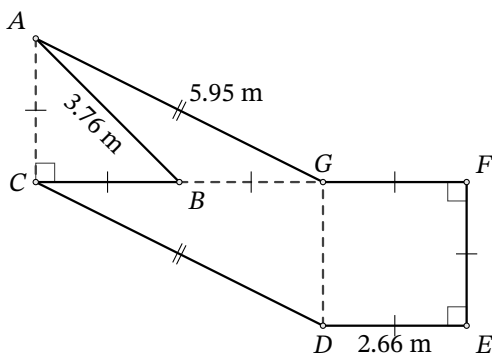
**Area**

$$\begin{aligned} & (\text{Area of } ABCD) + (\text{Area of } ADE) \\ &= \left( \frac{52.8+39.1}{2} \right) \times 27.4 + \left( \frac{160.9+94.3}{2} \times 27.4 \right) \\ &= 1032.24 + 529.125 + 3496.24 \\ &= 5057.6 \text{ ft}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EF + FA \\ &= 65.7 + 13.6 + 48.7 + 43.1 + 160.9 + 43.1 \\ &= 375.1 \text{ ft} \end{aligned}$$

4.



**Area**

$$\begin{aligned} & (\text{Area of } CDEF) - (\text{Area of } ABG) + (\text{Area of } ABG) \\ &= (2.66 \times 5.32) - \left( \frac{2.66 \times 2.66}{2} \right) + (2.66^2) \\ &= 14.1512 - 3.5378 + 7.0756 \\ &= 17.69 \text{ m}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GA \\ &= 3.76 + 2.66 + 5.95 + 2.66 + 2.66 + 2.66 + 5.95 \\ &= 26.3 \text{ m} \end{aligned}$$

# Area and Perimeter of Composite Shapes (H)

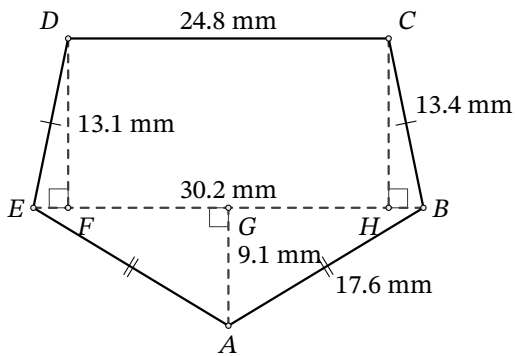
Name: \_\_\_\_\_

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

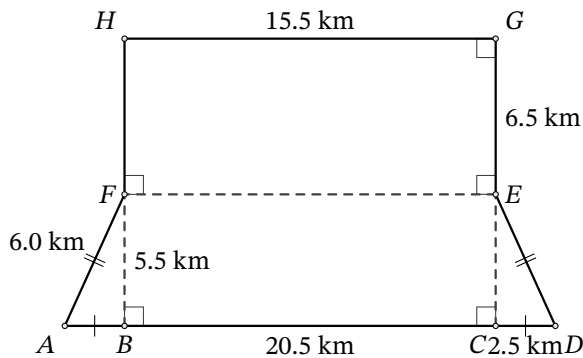
Score: \_\_\_\_\_

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

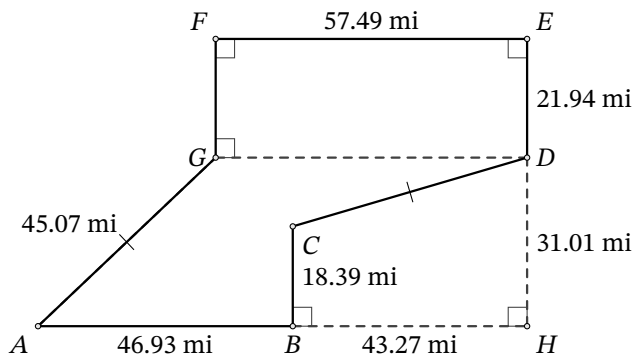
1.



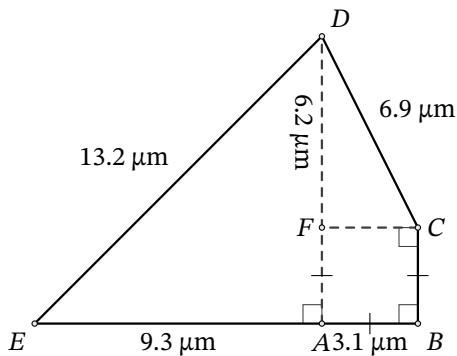
2.



3.



4.



# Area and Perimeter of Composite Shapes (H) Answers

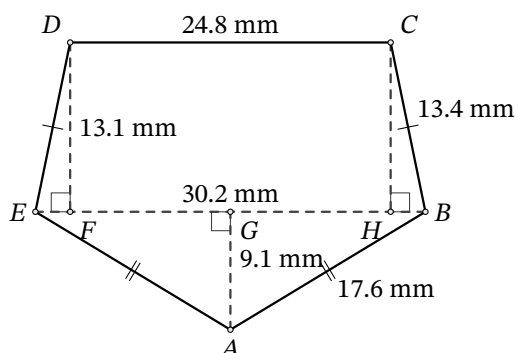
Name: \_\_\_\_\_

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

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

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

1.



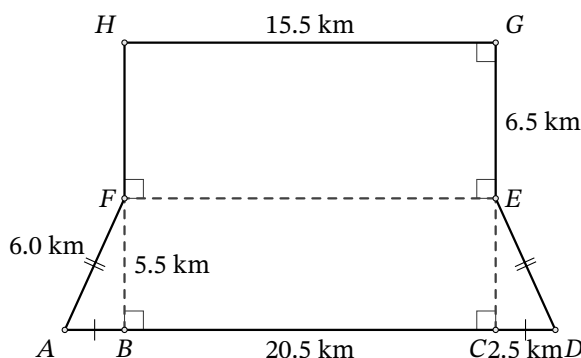
**Area**

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

**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.



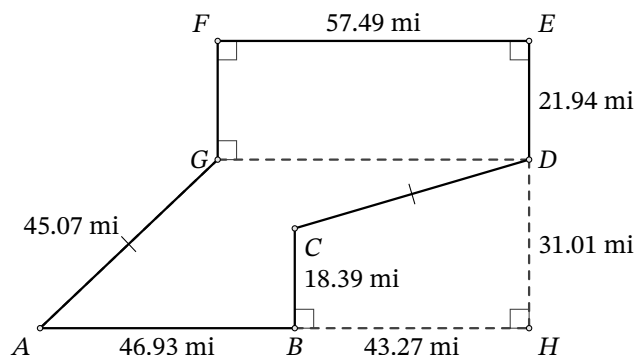
**Area**

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

**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.



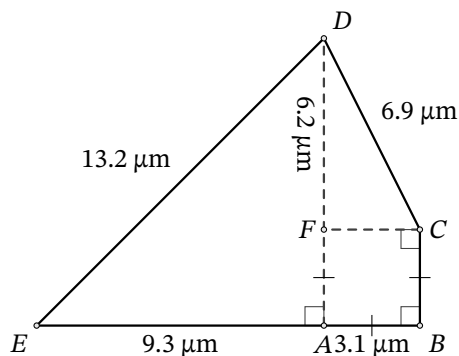
**Area**

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

**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**

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



# Area and Perimeter of Composite Shapes (I)

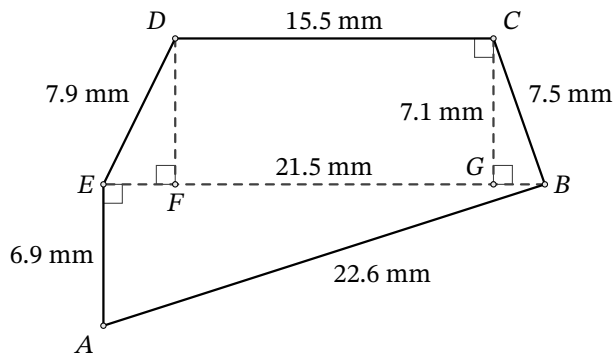
Name: \_\_\_\_\_

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

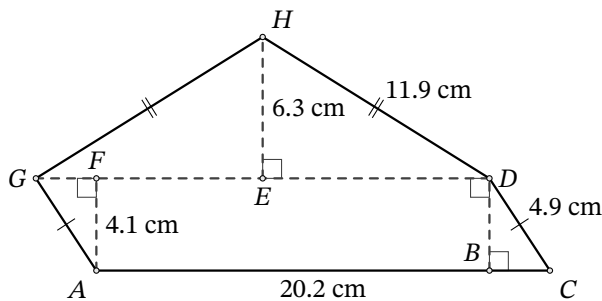
Score: \_\_\_\_\_

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

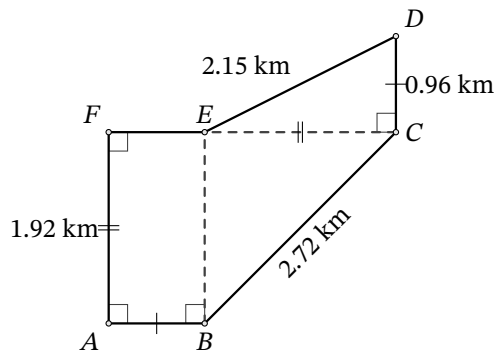
1.



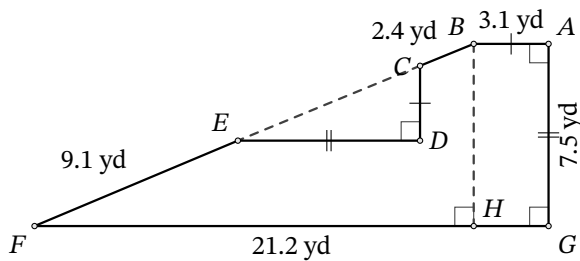
2.



3.



4.



# Area and Perimeter of Composite Shapes (I) Answers

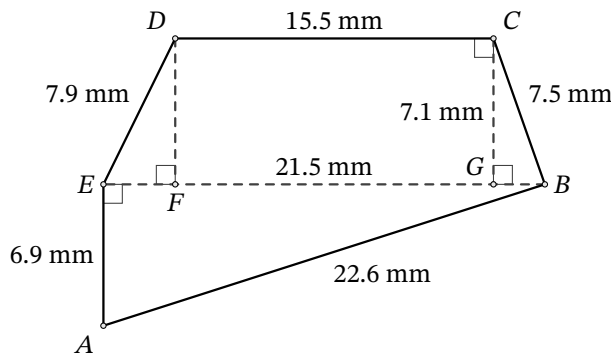
Name: \_\_\_\_\_

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

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

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

1.



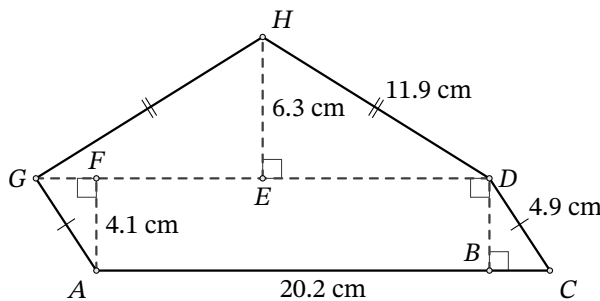
**Area**

$$\begin{aligned} & (\text{Area of } ABE) + (\text{Area of } BCDE) \\ &= \left(\frac{21.5 \times 6.9}{2}\right) + \left(\frac{21.5 + 15.5}{2} \times 7.1\right) \\ &= 74.175 + 131.35 \\ &= 205.5 \text{ mm}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EA \\ &= 22.6 + 7.5 + 15.5 + 7.9 + 6.9 \\ &= 60.4 \text{ mm} \end{aligned}$$

2.



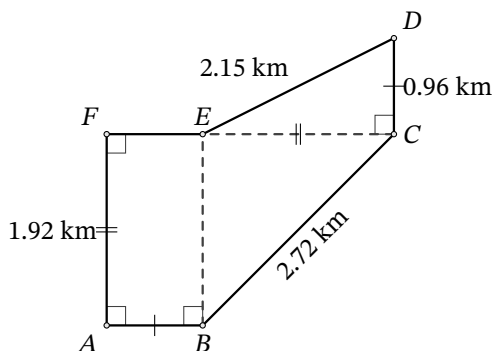
**Area**

$$\begin{aligned} & (\text{Area of } ACDG) + (\text{Area of } DHG) \\ &= (20.2 \times 4.1) + \left(\frac{20.2 \times 6.3}{2}\right) \\ &= 82.82 + 63.63 \\ &= 146.5 \text{ cm}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AC + CD + DH + HG + GA \\ &= 20.2 + 4.9 + 11.9 + 11.9 + 4.9 \\ &= 53.8 \text{ cm} \end{aligned}$$

3.



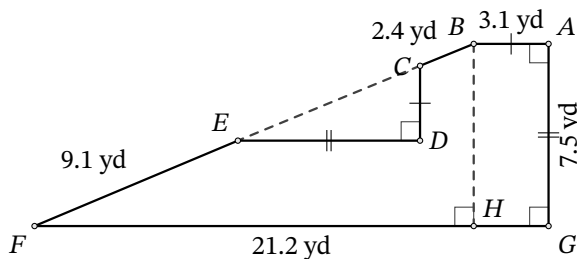
**Area**

$$\begin{aligned} & (\text{Area of } ABEF) + (\text{Area of } BCDE) \\ &= (1.92 \times 0.96) + \left(\frac{1.92 + 0.96}{2} \times 1.92\right) \\ &= 1.8432 + 2.7648 \\ &= 4.61 \text{ km}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EF + FA \\ &= 0.96 + 2.72 + 0.96 + 2.15 + 0.96 + 1.92 \\ &= 9.67 \text{ km} \end{aligned}$$

4.



**Area**

$$\begin{aligned} & (\text{Area of } ABFG) - (\text{Area of } CED) \\ &= \left(\frac{21.2 + 3.1}{2} \times 7.5\right) - \left(\frac{7.5 \times 3.1}{2}\right) \\ &= 91.125 - 11.625 \\ &= 79.5 \text{ yd}^2 \end{aligned}$$

**Perimeter**

$$\begin{aligned} &= AB + BC + CD + DE + EF + FG + GA \\ &= 3.1 + 2.4 + 3.1 + 7.5 + 9.1 + 21.2 + 7.5 \\ &= 53.9 \text{ yd} \end{aligned}$$

# Area and Perimeter of Composite Shapes (J)

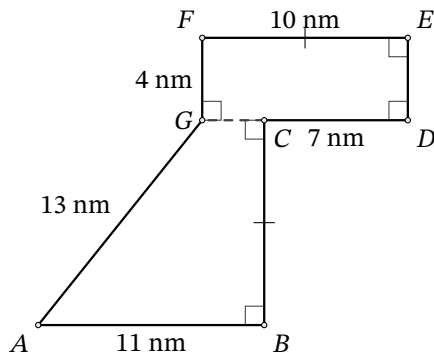
Name: \_\_\_\_\_

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

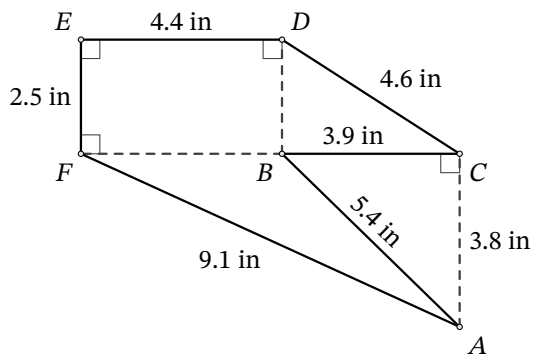
Score: \_\_\_\_\_

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

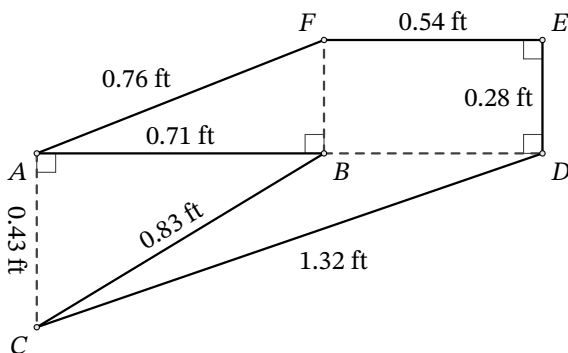
1.



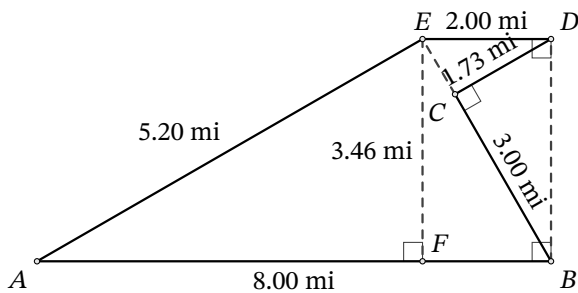
2.



3.



4.



# Area and Perimeter of Composite Shapes (J) Answers

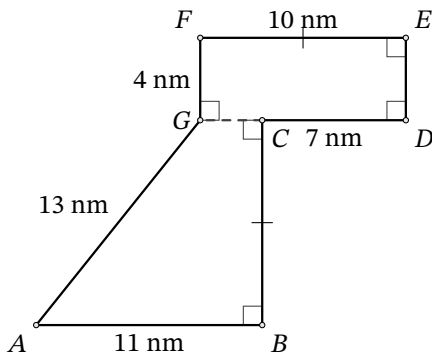
Name: \_\_\_\_\_

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

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

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

1.



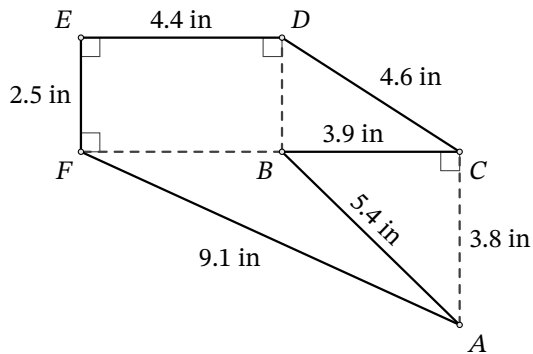
**Area**

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

**Perimeter**

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

2.



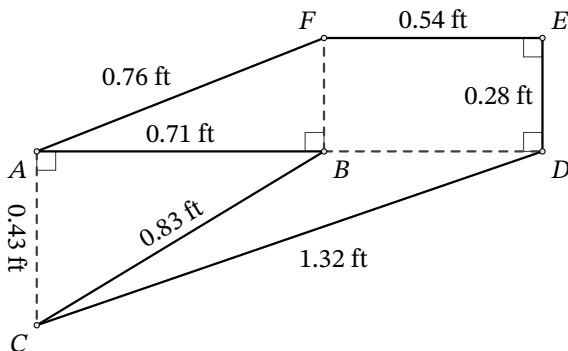
**Area**

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

**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.



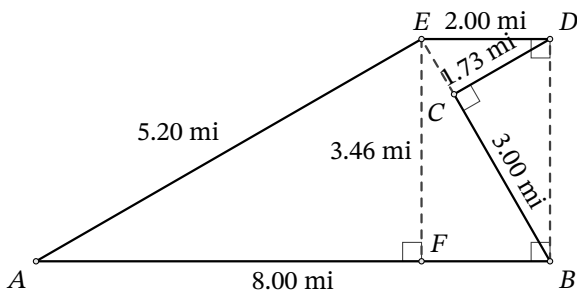
**Area**

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

**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**

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