# 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.

1.
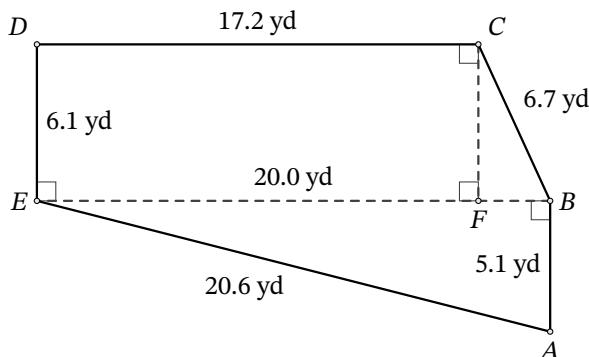
2.
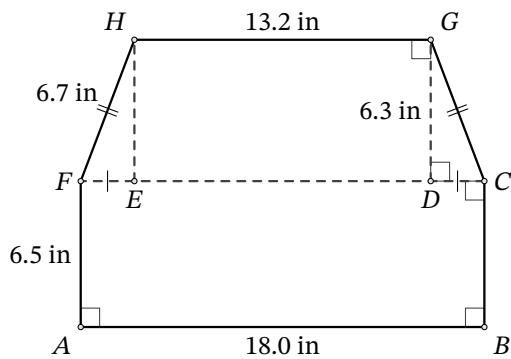
3.
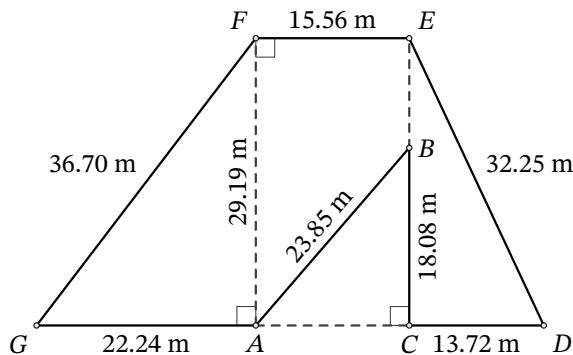
4.
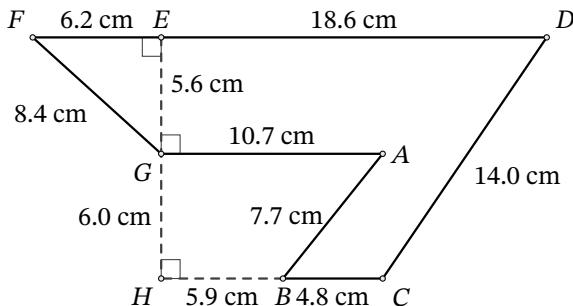
Area and Perimeter of Composite Shapes (F) Answers

Name: _____ Date: _____ Score: _____

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

1.

D — 17.2 yd — C

6.1 yd

6.7 yd

20.0 yd

E — F — B

5.1 yd

20.6 yd

A
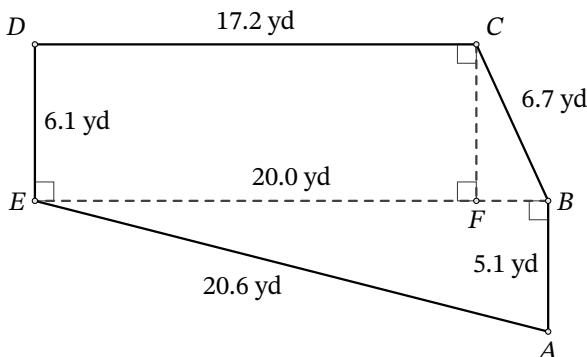
Area

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

Perimeter

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

2.

H — 13.2 in — G

6.7 in

6.3 in

F — E — D — C

6.5 in

A — 18.0 in — B
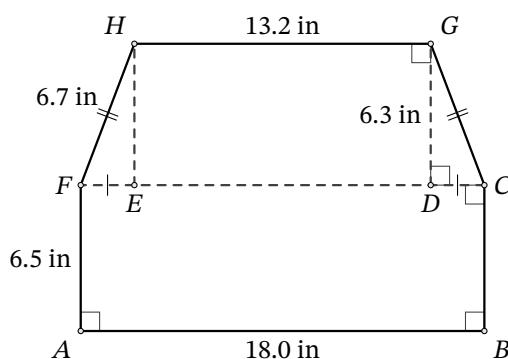
Area

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

Perimeter

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

3.

F — 15.56 m — E

36.70 m

29.19 m

23.85 m

B

18.08 m

32.25 m

G — 22.24 m — A — C — 13.72 m — D
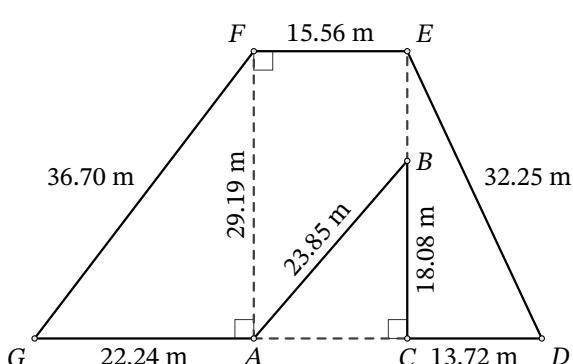
Area

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

Perimeter

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

4.

F — 6.2 cm — E — 18.6 cm — D

5.6 cm

8.4 cm

10.7 cm

G — A

14.0 cm

6.0 cm 7.7 cm

H — 5.9 cm — B — 4.8 cm — C
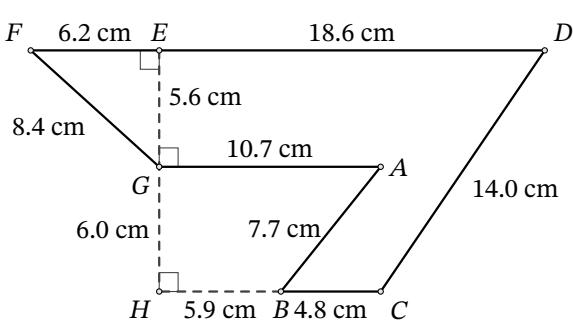
Area

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

Perimeter

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