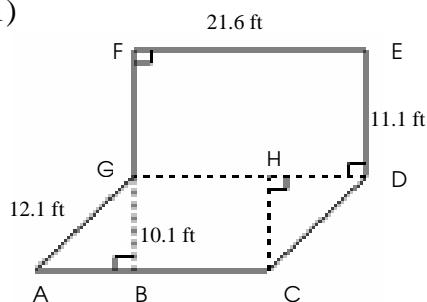


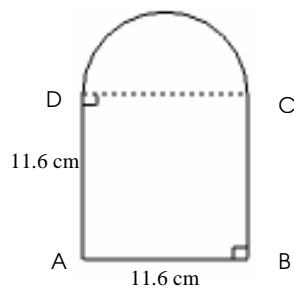
Area and Perimeter of Compound Shapes (B)

Instructions: Find the area and perimeter of each compound shape.

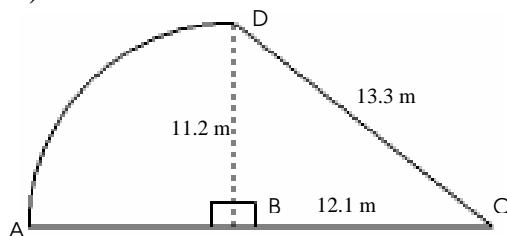
1)



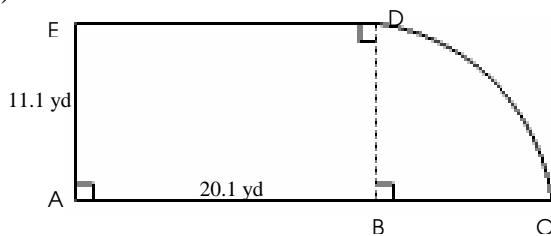
2)



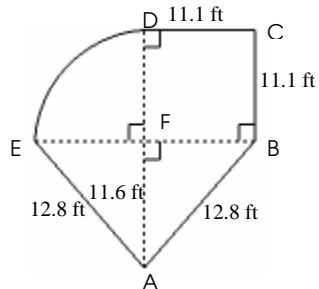
3)



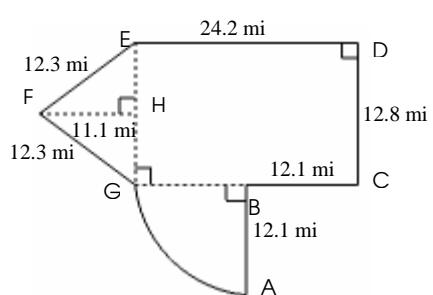
4)



5)

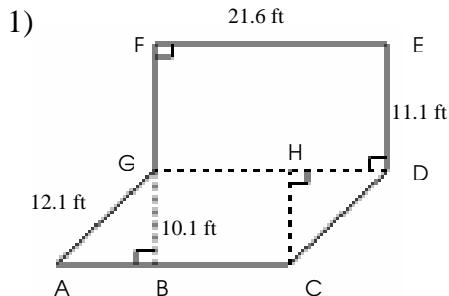


6)



Area and Perimeter of Compound Shapes Answer (B)

Instructions: Find the area and perimeter of each compound shape.

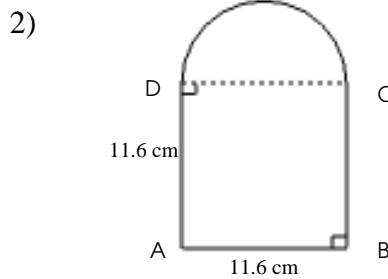


Area

$$\begin{aligned}
 &= \text{Area of } ACDG + \text{Area of } DEFG \\
 &= (AC \times BG) + (DE \times EF) \\
 &= (21.6 \times 10.1) + (11.1 \times 21.6) \\
 &= 457.9 \text{ ft}^2
 \end{aligned}$$

Perimeter

$$\begin{aligned}
 &= (2x AC) + (2x CD) + (2x DE) \\
 &= (2x 21.6) + (2x 12.1) + (2x 11.1) \\
 &= 89.6 \text{ ft}
 \end{aligned}$$

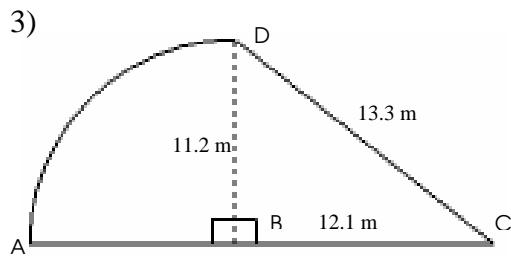


Area

$$\begin{aligned}
 &= \text{Area of } ABCD + \text{Area of Part Circle } CD \\
 &= (AD \times AB) + 0.5 \pi (0.5 CD)^2 \\
 &= (11.6 \times 9.1) + 0.5 \times 3.14 (0.5 \times 9.1)^2 \\
 &= 138.1 \text{ cm}^2
 \end{aligned}$$

Perimeter

$$\begin{aligned}
 &= AB + (2x AD) + \text{Arc } CD \\
 &= 9.1 + (2x 11.6) + 0.5 \times 3.14 \times 9.1 \\
 &= 46.6 \text{ cm}
 \end{aligned}$$

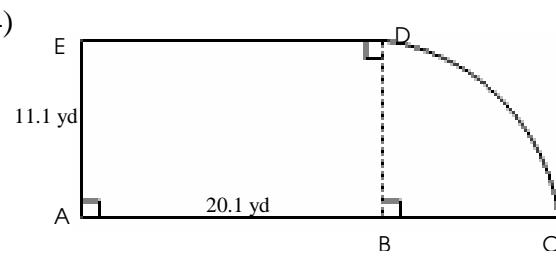


Area

$$\begin{aligned}
 &= \text{Area of } BCD + \text{Area of Part Circle } ABD \\
 &= (0.5 \times BC \times BD) + 0.25 \pi (BC)^2 \\
 &= (0.5 \times 12.1 \times 11.2) + 0.25 \times 3.14 \times (11.2)^2 \\
 &= 166.2 \text{ m}^2
 \end{aligned}$$

Perimeter

$$\begin{aligned}
 &= \text{Arc } AD + BC + CD \\
 &= 0.25 \times 3.14 \times 2 \times 10.1 + 12.1 + 11.2 \\
 &= 43.0 \text{ m}
 \end{aligned}$$

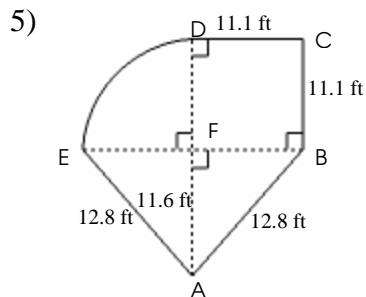


Area

$$\begin{aligned}
 &= \text{Area of } ABDE + \text{Area of Part Circle } BCD \\
 &= (AB \times AE) + 0.25 \pi (BD)^2 \\
 &= (20.1 \times 11.1) + 0.25 \pi (11.1)^2 \\
 &= 319.8 \text{ yd}^2
 \end{aligned}$$

Perimeter

$$\begin{aligned}
 &= (2x AB) + \text{Arc } DC + EA \\
 &= (2x 20.1) + 0.25 \times 3.14 \times 2 \times 11.1 + 11.1 \\
 &= 68.7 \text{ yd}
 \end{aligned}$$

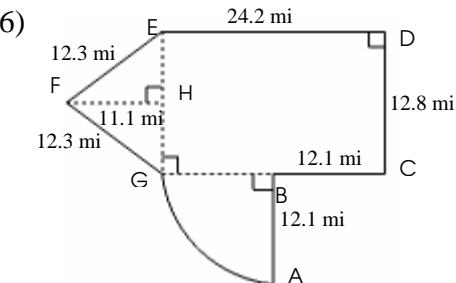


Area

$$\begin{aligned}
 &= \text{Area of } ABE + \text{Area of } BCDF + \text{Area of Part Circle } DEF \\
 &= (0.5x AF \times (2x BF)) + (DC)^2 + 0.25 \pi (FD)^2 \\
 &= (0.5x 11.6 \times (2x 11.1)) + (11.1)^2 + 0.25 \pi (11.1)^2 \\
 &= 348.7 \text{ ft}^2
 \end{aligned}$$

Perimeter

$$\begin{aligned}
 &= (2x AB) + \text{Arc } DE + (2x CD) \\
 &= (2x 12.8) + 0.25 \times 3.14 \times 2 \times 10.1 + (2x 11.1) \\
 &= 65.2 \text{ ft}
 \end{aligned}$$



Area

$$\begin{aligned}
 &= \text{Area of } EFG + \text{Area of } CDEG + \text{Area of Part Circle } ABG \\
 &= (0.5x EG \times FH) + (CD \times DE) + 0.25 \pi (BA)^2 \\
 &= (0.5x 12.8 \times 11.1) + (12.8 \times 24.2) + 0.25 \pi (12.1)^2 \\
 &= 495.7 \text{ mi}^2
 \end{aligned}$$

Perimeter

$$\begin{aligned}
 &= AB + BC + CD + ED + \text{Arc } AG + (2x EF) \\
 &= 12.1 + 12.1 + 12.8 + 24.2 + 0.25 \times 3.14 \times 2 \times 12.1 + (2 \times 12.3) \\
 &= 104.8 \text{ mi}
 \end{aligned}$$