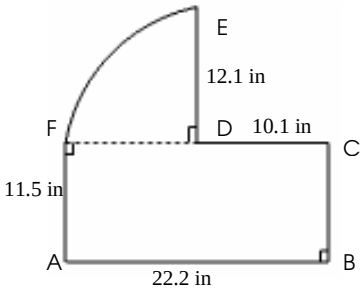
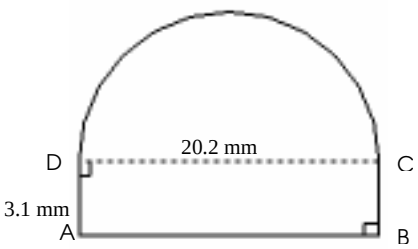
Area and Perimeter of Compound Shapes

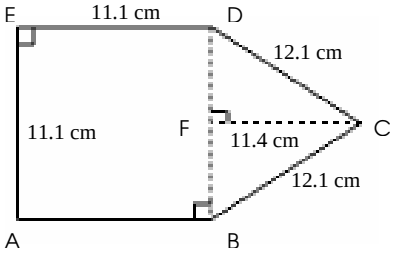
1)



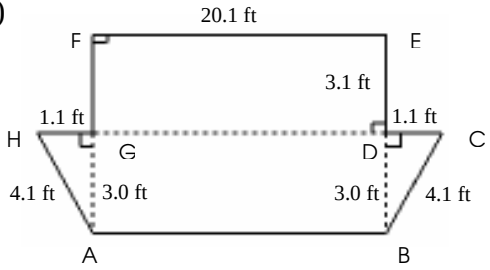
2)



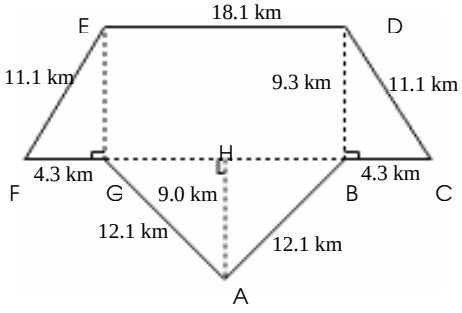
3)



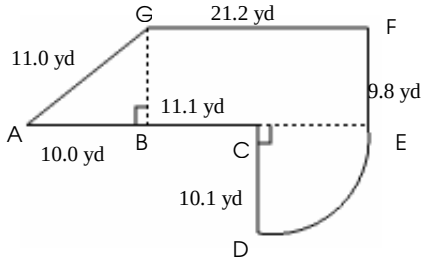
4)



5)



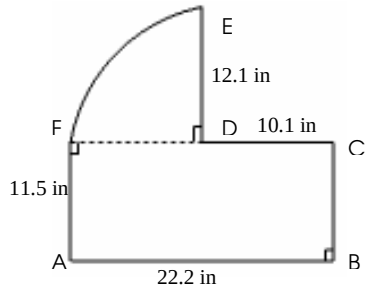
6)



Area and Perimeter of Compound Shapes Answer

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

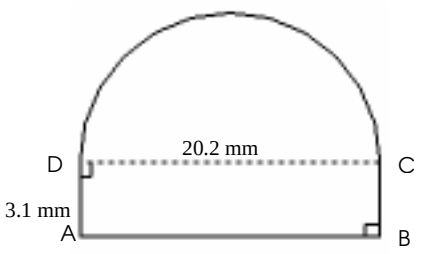
1)



Area = Area of ABCF + Area of Part Circle DEF
= (AB x AF) + 0.25 Π (DE)^2
= (22.2 x 11.5) + 0.25 x 3.14 (12.1)^2
= 370.2 in^2

Perimeter = AB+BC+CD+ DE+Arc EF+AF
= 22.2+11.5+10.1+12.1 +0.25x3.14x2x12.1+11.5
= 86.4 in

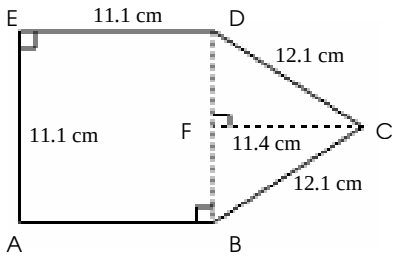
2)



Area = Area of ABCD + Area of Part Circle DC
= (AD x AB) + 0.5 Π (0.5 DC)^2
= (3.1 x 20.2) + 0.5 x 3.14 (0.5x20.2)^2
= 222.8 mm^2

Perimeter = AB + Arc BC + (2x AD)
= 20.2 +(0.5x3.14x20.2) + (2x3.1)
= 58.1 mm

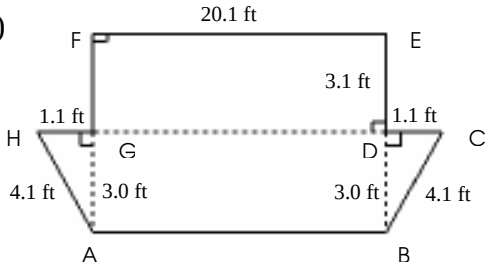
3)



Area = Area of ABDE + Area of BDC
= (ED)^2+ (0.5x BD x FC)
= (11.1)^2+ (0.5x 11.1 x 11.4)
= 186.5 cm

Perimeter = (3x ED) + (2x CD)
= (3x 11.1) + (2x 12.1)
= 57.5 cm

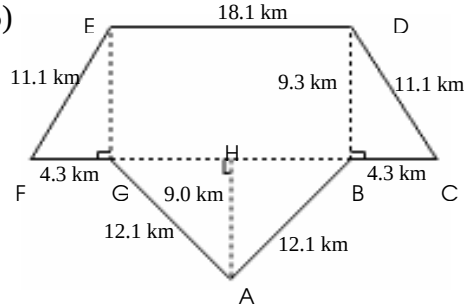
4)



Area = Area of ABCH + Area of DEFG
= (0.5 x (AB + GD+ (2x GH))x BD) + (EF x DE)
= (0.5 x ((2x 20.1)+ (2x 1.1))x 3.0) + (20.1x 3.1)
= 125.9 ft^2

Perimeter = (2x AH) + (2x EF) + (2x DE) + (2x GH)
= (2x 4.1) + (2x 20.1) + (2x 3.1) + (2x 1.1)
= 56.8 ft

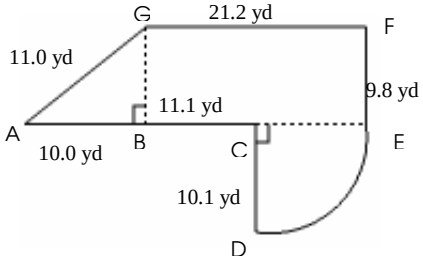
5)



Area = Area of CDEF + Area of ABG
= (0.5x((2x BC)+ (2xED))x BD) + (0.5 x AH xBG)
= (0.5x((2x 4.3)+ (2x18.1))x 9.3) + (0.5x9.0 x 18.1)
= 289.8 km^2

Perimeter = (2x AB) + (2x BC) + (2x CD) +ED
= (2x 12.1) + (2x 4.3) + (2x 11.1) +18.1
= 73.1 km

6)



Area = Area of AEFG + Area of Part Circle CDE
= (0.5 x(AB+BC+CE+GF)x 9.8) + 0.25 Π (CE)2
= (0.5 x(10.0+11.1+10.1+21.2)x 9.8)+0.25 Π (10.1)2
= 336.8 yd^2

Perimeter = AC + CD + Arc ED + EF + FG +GA
= 21.1+10.1+ 0.25x3.14x2x10.1+ 9.8+21.2+11.0
= 89.1 yd