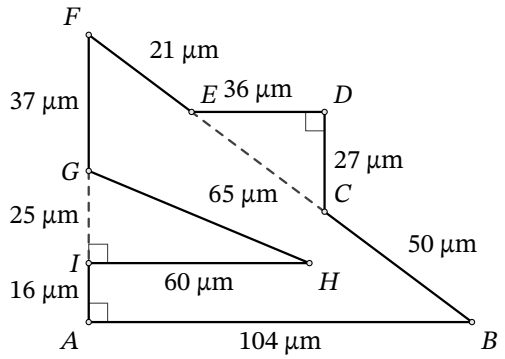
Area and Perimeter of Composite Shapes (J)

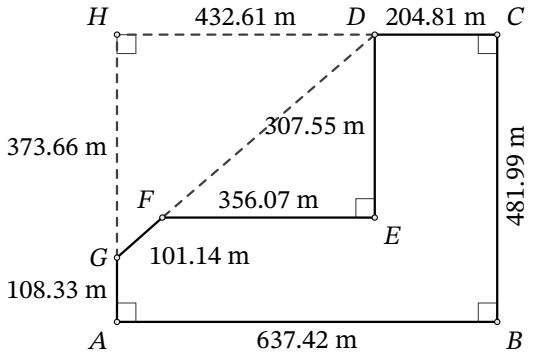
Name: _____ Date: _____ Score: _____

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

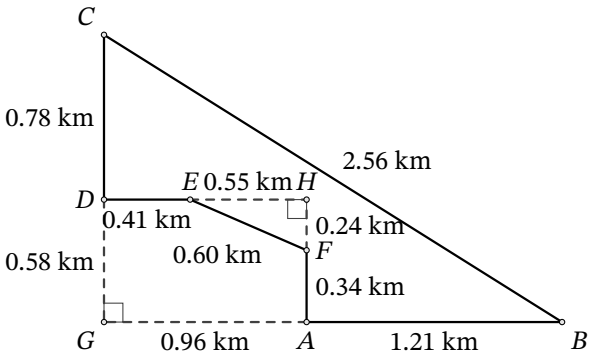
1.



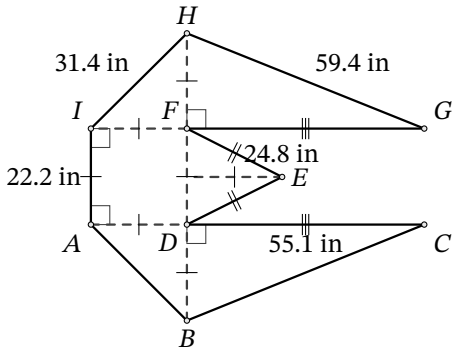
2.



3.



4.

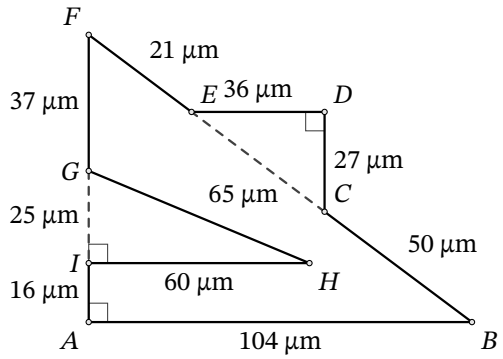


Area and Perimeter of Composite Shapes (J) Answers

Name: _____ Date: _____ Score: _____

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

1.



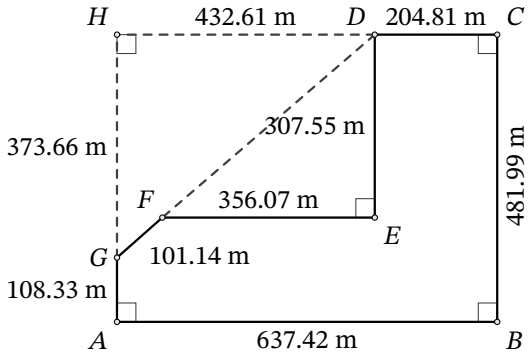
Area

(Area of ABF) − (Area of GIH) + (Area of CDE)
$= \left(\frac{104\times78}{2}\right) - \left(\frac{60\times25}{2}\right) + \left(\frac{36\times27}{2}\right)$
$= 4056 - 750 + 486$
$= 3792\ \mu m^2$

Perimeter

$= AB + BC + CD + DE + EF + FG + GH + HI + IA$
$= 104 + 50 + 27 + 36 + 21 + 37 + 65 + 60 + 16$
$= 416\ \mu m$

2.



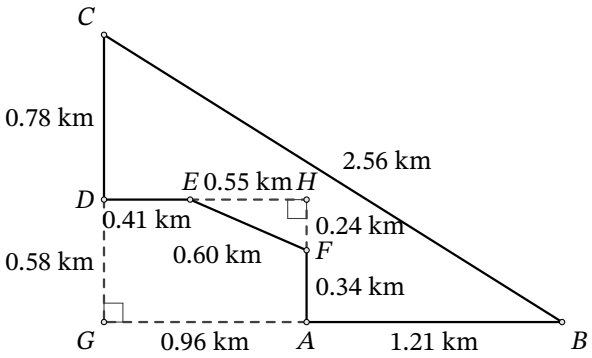
Area

(Area of $ABCH$) − (Area of DHG) − (Area of DFE)
$= (481.99 \times 637.42) - \left(\frac{432.61\times373.66}{2}\right) - \left(\frac{356.07\times307.55}{2}\right)$
$= 307{,}230.0658 - 80{,}824.5263 - 54{,}754.66425$
$= 171{,}650.88\ m^2$

Perimeter

$= AB + BC + CD + DE + EF + FG + GA$
$= 637.42 + 481.99 + 204.81 + 307.55 + 356.07 + 101.14 + 108.33$
$= 2197.31\ m$

3.



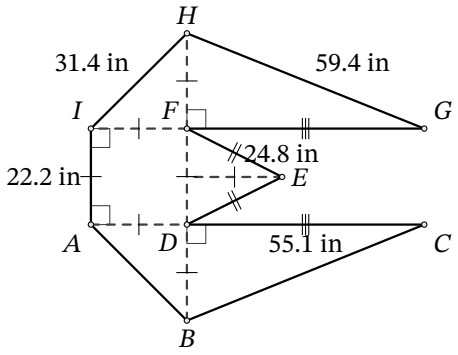
Area

(Area of BCG) − (Area of $AHDG$) + (Area of EFH)
$= \left(\frac{2.17\times1.36}{2}\right) - (0.58 \times 0.96) + \left(\frac{0.55\times0.24}{2}\right)$
$= 1.4756 - 0.5568 + 0.066$
$= 0.98\ km^2$

Perimeter

$= AB + BC + CD + DE + EF + FA$
$= 1.21 + 2.56 + 0.78 + 0.41 + 0.60 + 0.34$
$= 5.90\ km$

4.



Area

(Area of ABC) + (Area of $ADFI$) + (Area of DEF) + (Area of GHI)
$= \left(\frac{77.3\times22.2}{2}\right) + (22.2^2) + \left(\frac{22.2\times22.2}{2}\right) + \left(\frac{77.3\times22.2}{2}\right)$
$= 858.03 + 492.84 + 246.42 + 858.03$
$= 2455.3\ in^2$

Perimeter

$= AB + BC + CD + DE + EF + FG + GH + HI + IA$
$= 31.4 + 59.4 + 55.1 + 24.8 + 24.8 + 55.1 + 59.4 + 31.4 + 22.2$
$= 363.6\ in$