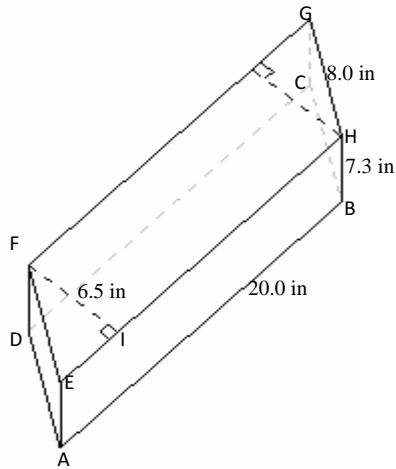


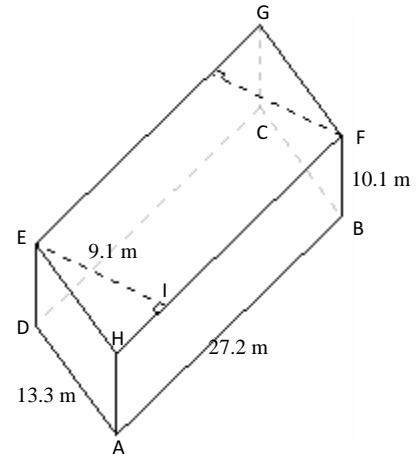
Volume and Surface Area of Parallelogram Prisms (A)

Instructions: Find the volume and surface area for each parallelogram prism.

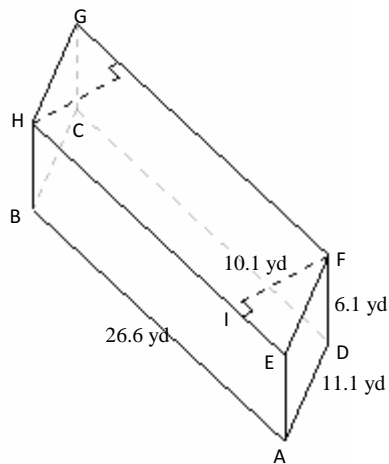
1)



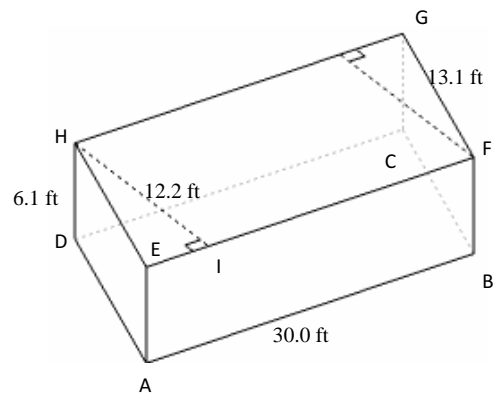
2)



3)



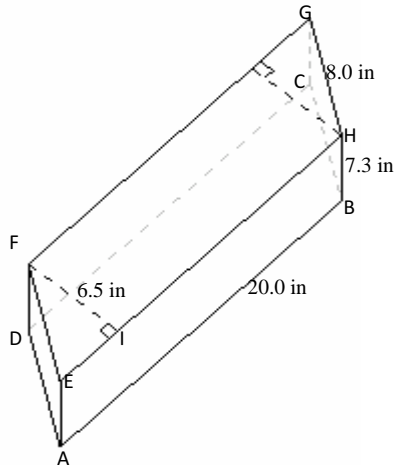
4)



Volume and Surface Area of Parallelogram Prisms (A)

Instructions: Find the volume and surface area for each parallelogram prism.

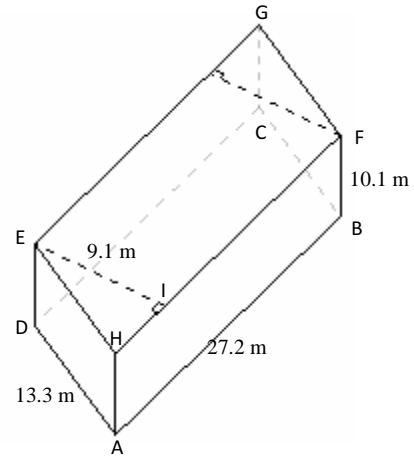
1)



$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (AB \times FI) \times AE \\ &= (20.0 \times 6.5) \times 7.3 \\ &= 949.0 \text{ in}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (AB \times FI)) + (((2 \times AB) + (2 \times BC)) \times AE) \\ &= (2 \times (20.0 \times 6.5)) + (((2 \times 20.0) + (2 \times 8.0)) \times 7.3) \\ &= 668.8 \text{ in}^2 \end{aligned}$$

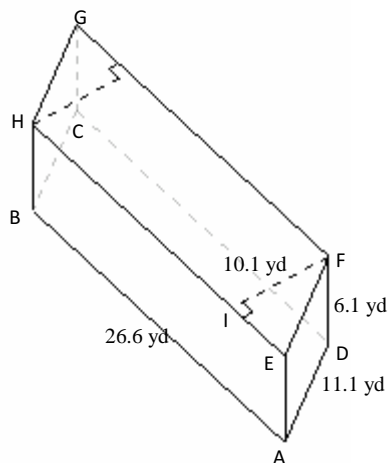
2)



$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (AB \times EI) \times FB \\ &= (27.2 \times 9.1) \times 10.1 \\ &= 2500.0 \text{ m}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times FB) \\ &= (2 \times (AB \times EI)) + (((2 \times AB) + (2 \times BC)) \times FB) \\ &= (2 \times (27.2 \times 9.1)) + (((2 \times 27.2) + (2 \times 13.3)) \times 10.1) \\ &= 1313.1 \text{ m}^2 \end{aligned}$$

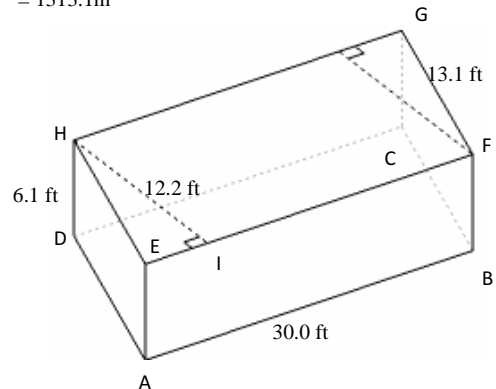
3)



$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (AB \times FI) \times AE \\ &= (26.6 \times 10.1) \times 6.1 \\ &= 1638.8 \text{ yd}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (AB \times FI)) + (((2 \times AB) + (2 \times BC)) \times AE) \\ &= (2 \times (26.6 \times 10.1)) + (((2 \times 26.6) + (2 \times 11.1)) \times 6.1) \\ &= 997.3 \text{ yd}^2 \end{aligned}$$

4)



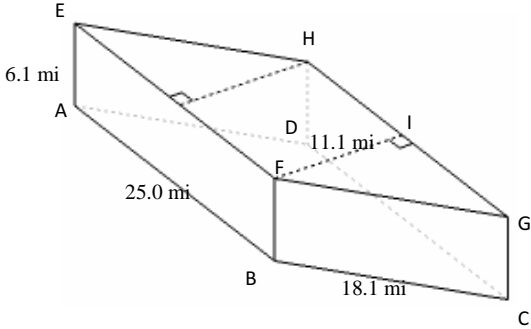
$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (AB \times HI) \times HD \\ &= (30.0 \times 12.2) \times 6.1 \\ &= 2232.6 \text{ ft}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (AB \times HI)) + (((2 \times AB) + (2 \times BC)) \times HD) \\ &= (2 \times (30.0 \times 12.2)) + (((2 \times 30.0) + (2 \times 13.1)) \times 6.1) \\ &= 1257.8 \text{ ft}^2 \end{aligned}$$

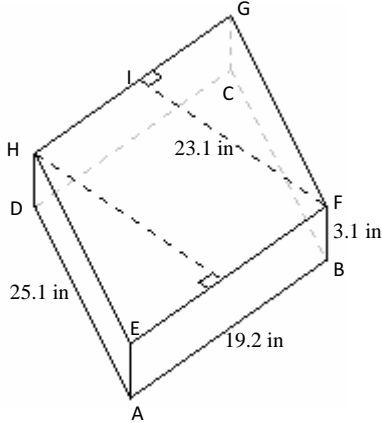
Volume and Surface Area of Parallelogram Prisms (B)

Instructions: Find the volume and surface area for each parallelogram prism.

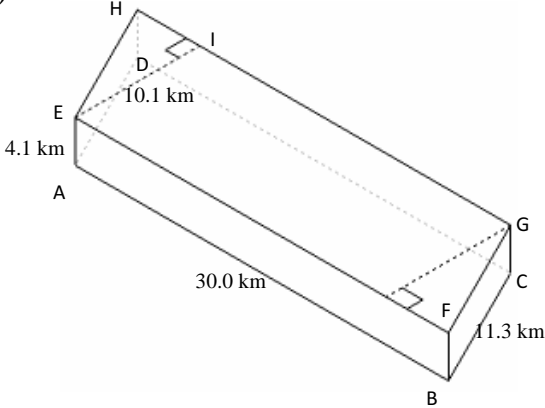
1)



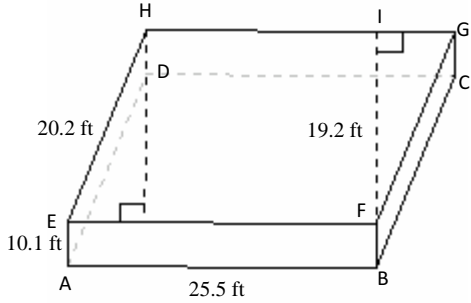
2)



3)

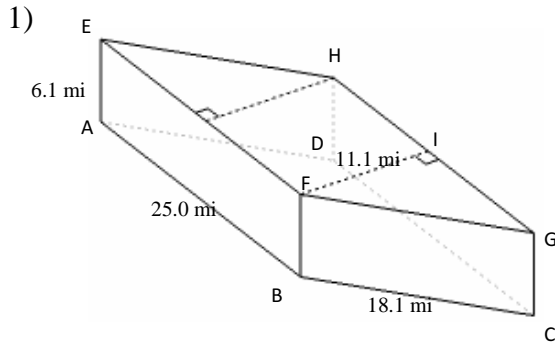


4)



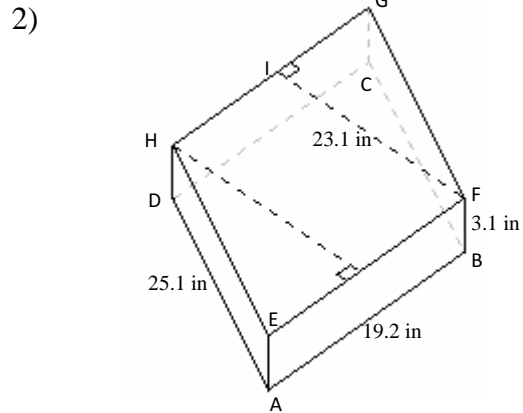
Volume and Surface Area of Parallelogram Prisms (B)

Instructions: Find the volume and surface area for each parallelogram prism.



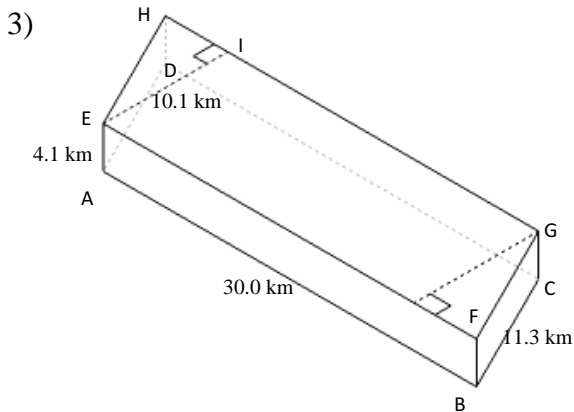
$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (AB \times FI) \times AE \\ &= (25.0 \times 11.1) \times 6.1 \\ &= 1692.8 \text{ mi}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (AB \times FI)) + (((2 \times AB) + (2 \times BC)) \times AE) \\ &= (2 \times (25.0 \times 11.1)) + (((2 \times 25.0) + (2 \times 18.1)) \times 6.1) \\ &= 1080.8 \text{ mi}^2 \end{aligned}$$



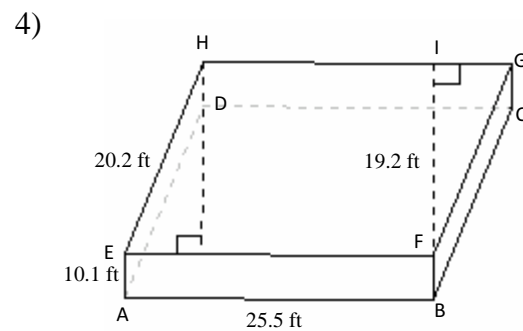
$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (AB \times FI) \times AE \\ &= (19.2 \times 23.1) \times 3.1 \\ &= 1374.9 \text{ in}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (AB \times FI)) + (((2 \times AB) + (2 \times EH)) \times AE) \\ &= (2 \times (19.2 \times 23.1)) + (((2 \times 19.2) + (2 \times 25.1)) \times 3.1) \\ &= 1161.7 \text{ in}^2 \end{aligned}$$



$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (AB \times EI) \times AE \\ &= (30.0 \times 10.1) \times 4.1 \\ &= 1242.3 \text{ km}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (AB \times EI)) + (((2 \times AB) + (2 \times BC)) \times AE) \\ &= (2 \times (30.0 \times 10.1)) + (((2 \times 30.0) + (2 \times 11.3)) \times 4.1) \\ &= 944.7 \text{ km}^2 \end{aligned}$$



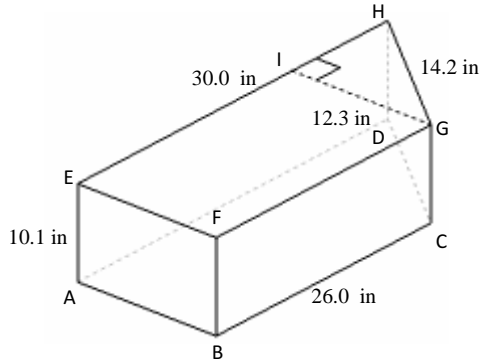
$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (AB \times EI) \times AE \\ &= (25.5 \times 19.2) \times 10.1 \\ &= 4945.0 \text{ ft}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (AB \times EI)) + (((2 \times AB) + (2 \times EH)) \times AE) \\ &= (2 \times (25.5 \times 19.2)) + (((2 \times 25.5) + (2 \times 20.2)) \times 10.1) \\ &= 1902.3 \text{ ft}^2 \end{aligned}$$

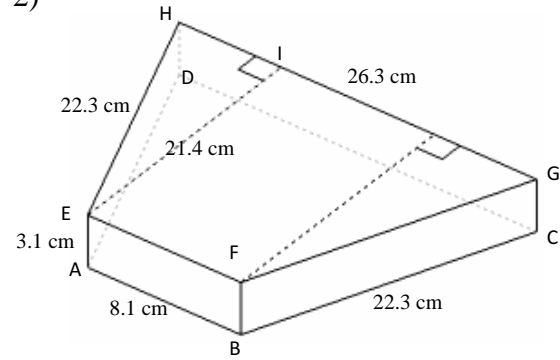
Volume and Surface Area of Trapezoid Prisms (C)

Instructions: Find the volume and surface area for each trapezoid prism.

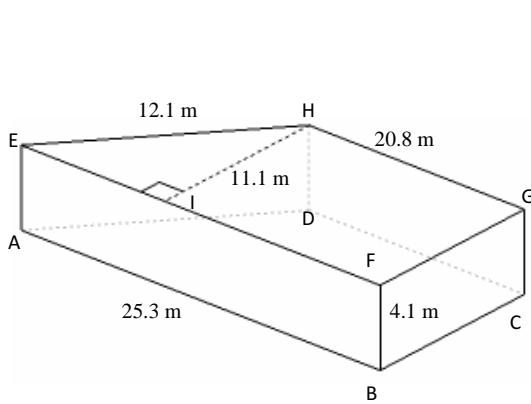
1)



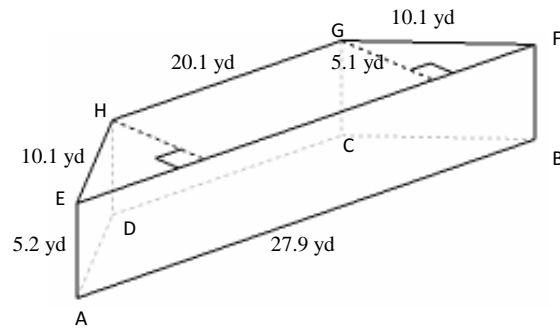
2)



3)



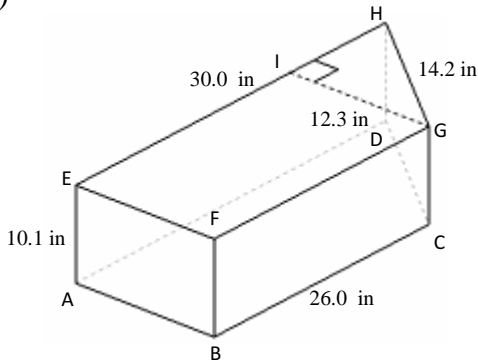
4)



Volume and Surface Area of Trapezoid Prisms (C)

Instructions: Find the volume and surface area for each trapezoid prism.

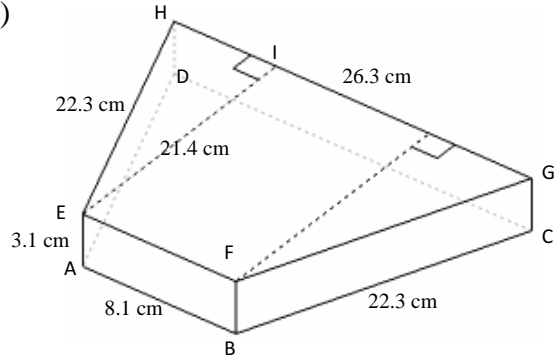
1)



$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (0.5 \times (AD + BC) \times GI) \times AE \\ &= (0.5 \times (30.0 + 26.0) \times 12.3) \times 10.1 \\ &= 3478.4 \text{ in}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (0.5 \times (AD + BC) \times GI)) + ((AB + BC + CD + DA) \times AE) \\ &= (2 \times (0.5 \times (30.0 + 26.0) \times 12.3)) + ((12.3 + 26.0 + 14.2 + 30.0) \times 10.1) \\ &= 1522.1 \text{ in}^2 \end{aligned}$$

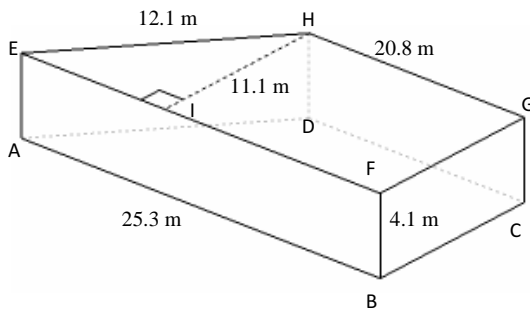
2)



$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (0.5 \times (AB + CD) \times EI) \times AE \\ &= (0.5 \times (8.1 + 26.3) \times 21.4) \times 3.1 \\ &= 1141.0 \text{ cm}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (0.5 \times (AB + CD) \times EI)) + (((2 \times AD) + AB + CD) \times AE) \\ &= (2 \times (0.5 \times (8.1 + 26.3) \times 21.4)) + (((2 \times 22.3) + 8.1 + 26.3) \times 3.1) \\ &= 981.1 \text{ cm}^2 \end{aligned}$$

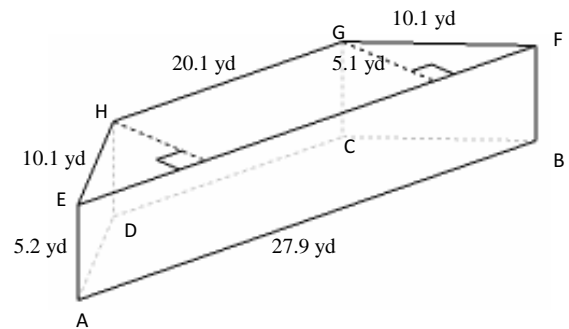
3)



$$\begin{aligned} V &= \text{Area of } ABCD \times BF \\ &= (0.5 \times (AB + CD) \times HI) \times BF \\ &= (0.5 \times (25.3 + 20.8) \times 11.1) \times 4.1 \\ &= 1049.0 \text{ m}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times BF) \\ &= (2 \times (0.5 \times (AB + CD) \times HI)) + ((AB + BC + CD + DA) \times BF) \\ &= (2 \times (0.5 \times (25.3 + 20.8) \times 11.1)) + ((25.3 + 11.1 + 20.8 + 12.1) \times 4.1) \\ &= 795.8 \text{ m}^2 \end{aligned}$$

4)



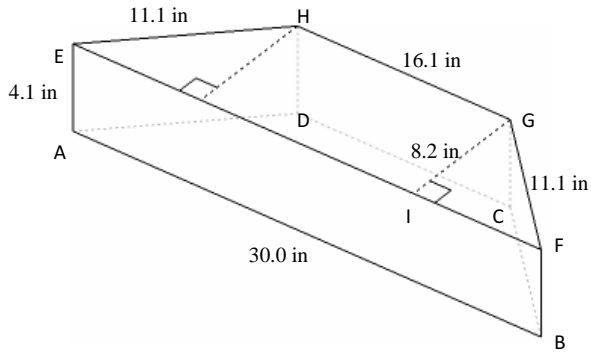
$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (0.5 \times (AB + CD) \times GI) \times AE \\ &= (0.5 \times (27.9 + 20.1) \times 5.1) \times 5.2 \\ &= 636.5 \text{ yd}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (0.5 \times (AB + CD) \times GI)) + (((2 \times AD) + AB + CD) \times AE) \\ &= (2 \times (0.5 \times (27.9 + 20.1) \times 5.1)) + (((2 \times 10.1) + 27.9 + 20.1) \times 5.2) \\ &= 599.4 \text{ yd}^2 \end{aligned}$$

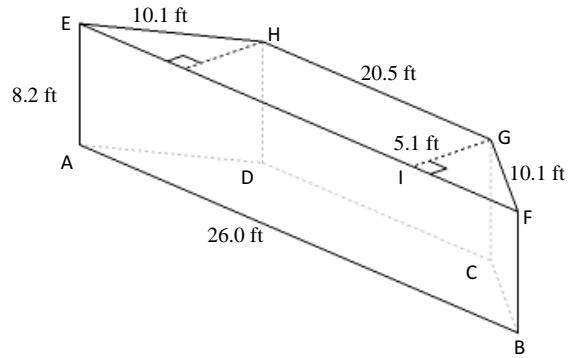
Volume and Surface Area of Trapezoid Prisms (D)

Instructions: Find the volume and surface area for each trapezoid prism.

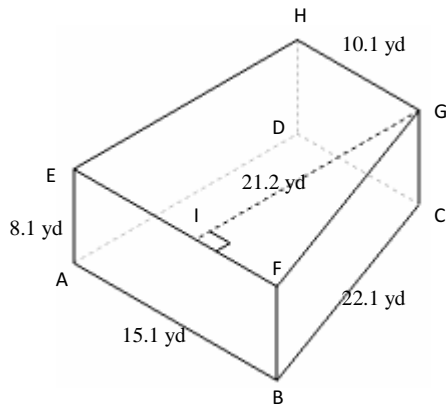
1)



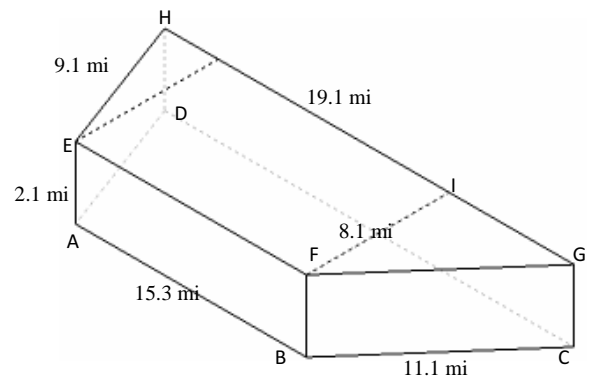
2)



3)

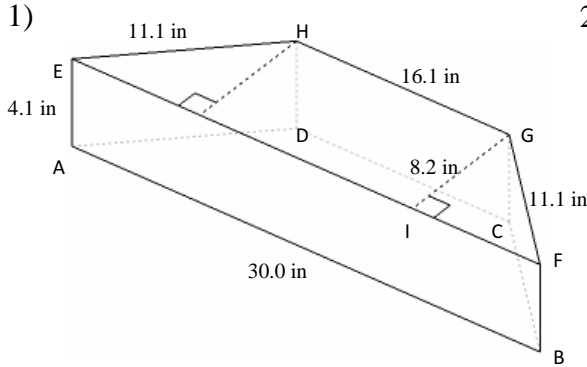


4)



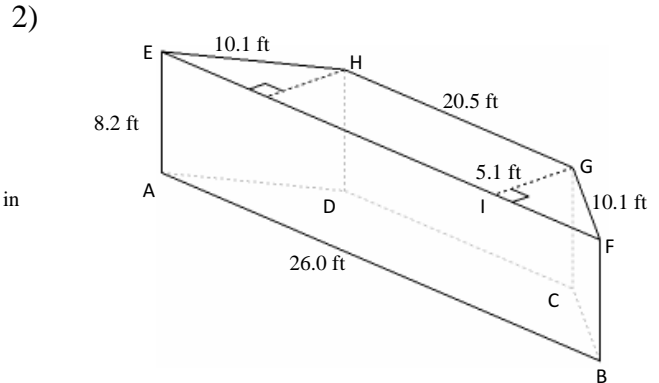
Volume and Surface Area of Trapezoid Prisms (D)

Instructions: Find the volume and surface area for each trapezoid prism.



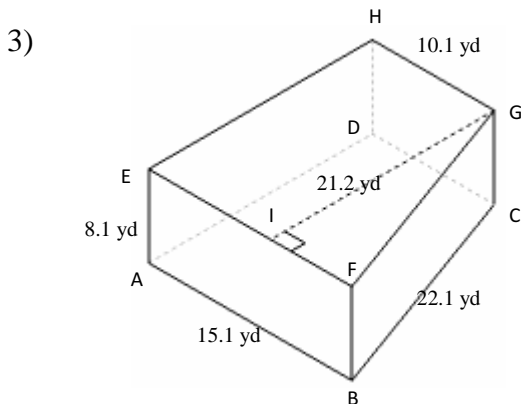
$$\begin{aligned}
 V &= \text{Area of } ABCD \times AE \\
 &= (0.5 \times (AB + CD) \times GI) \times AE \\
 &= (0.5 \times (30.0 + 16.1) \times 8.2) \times 4.1 \\
 &= 774.9 \text{ in}^3
 \end{aligned}$$

$$\begin{aligned}
 A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\
 &= (2 \times (0.5 \times (AB + CD) \times GI)) + (((2 \times AD) + AB + CD) \times AE) \\
 &= (2 \times (0.5 \times (30.0 + 16.1) \times 8.2)) + (((2 \times 11.1) + 30.0 + 16.1) \times 4.1) \\
 &= 658.1 \text{ in}^2
 \end{aligned}$$



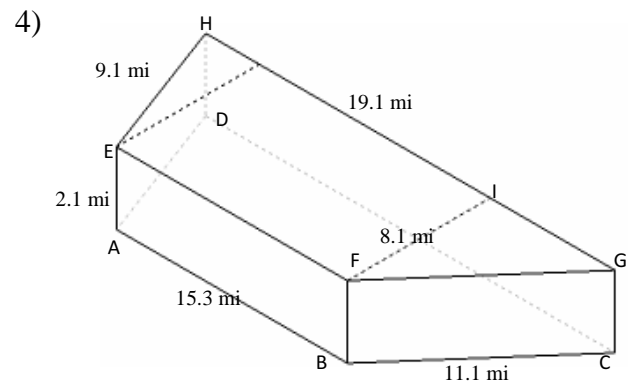
$$\begin{aligned}
 V &= \text{Area of } ABCD \times AE \\
 &= (0.5 \times (AB + CD) \times GI) \times AE \\
 &= (0.5 \times (26.0 + 20.5) \times 5.1) \times 8.2 \\
 &= 972.3 \text{ ft}^3
 \end{aligned}$$

$$\begin{aligned}
 A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\
 &= (2 \times (0.5 \times (AB + CD) \times GI)) + (((2 \times AD) + AB + CD) \times AE) \\
 &= (2 \times (0.5 \times (26.0 + 20.5) \times 5.1)) + (((2 \times 10.1) + 26.0 + 20.5) \times 8.2) \\
 &= 784.1 \text{ ft}^2
 \end{aligned}$$



$$\begin{aligned}
 V &= \text{Area of } ABCD \times AE \\
 &= (0.5 \times (AB + CD) \times GI) \times AE \\
 &= (0.5 \times (15.1 + 10.1) \times 21.2) \times 8.1 \\
 &= 2163.7 \text{ yd}^3
 \end{aligned}$$

$$\begin{aligned}
 A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\
 &= (2 \times (0.5 \times (AB + CD) \times GI)) + ((AB + BC + CD + DA) \times AE) \\
 &= (2 \times (0.5 \times (15.1 + 10.1) \times 21.2)) + ((15.1 + 22.1 + 10.1 + 21.1) \times 8.1) \\
 &= 1088.3 \text{ yd}^2
 \end{aligned}$$



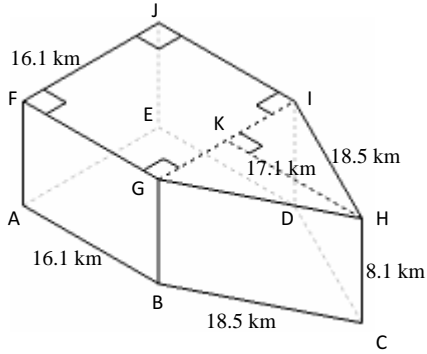
$$\begin{aligned}
 V &= \text{Area of } ABCD \times AE \\
 &= (0.5 \times (AB + CD) \times FI) \times AE \\
 &= (0.5 \times (15.3 + 11.1) \times 8.1) \times 2.1 \\
 &= 292.6 \text{ mi}^3
 \end{aligned}$$

$$\begin{aligned}
 A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\
 &= (2 \times (0.5 \times (AB + CD) \times FI)) + ((AB + BC + CD + DA) \times AE) \\
 &= (2 \times (0.5 \times (15.3 + 11.1) \times 8.1)) + ((15.3 + 11.1 + 19.1 + 9.1) \times 2.1) \\
 &= 393.3 \text{ mi}^2
 \end{aligned}$$

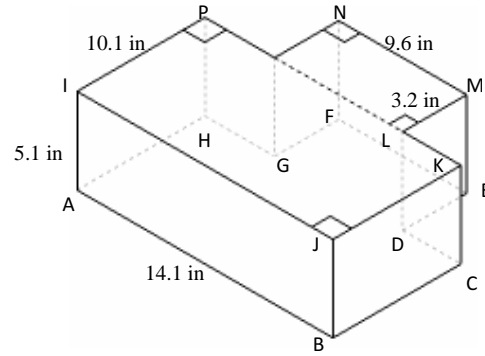
Volume and Surface Area of Composite Right Prisms (E)

Instructions: Find the volume and surface area for each composite right prism.

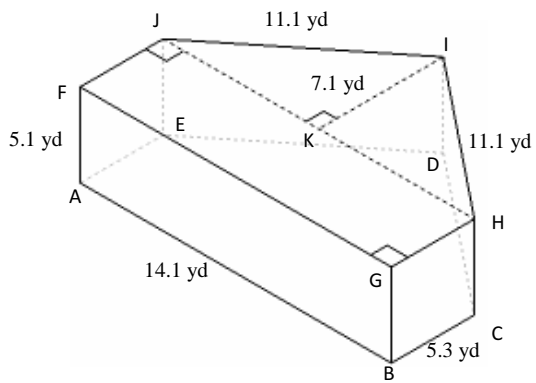
1)



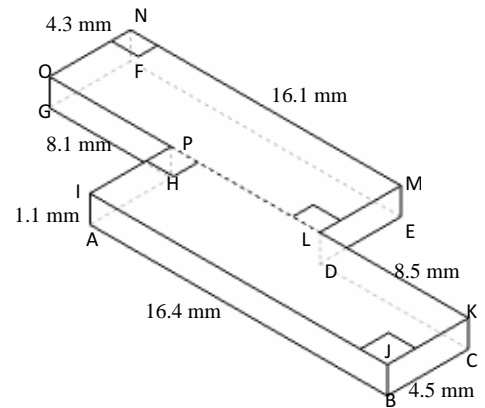
2)



3)



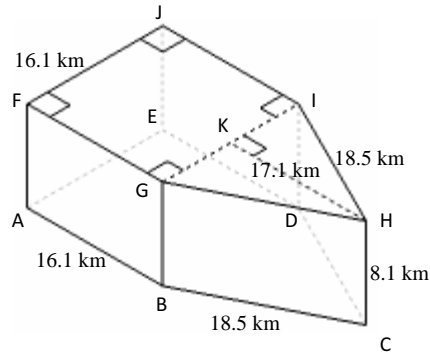
4)



Volume and Surface Area of Composite Right Prisms (E)

Instructions: Find the volume and surface area for each composite right prism.

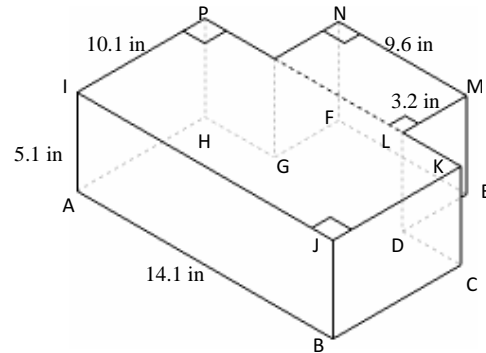
1)



$$\begin{aligned} V &= (\text{Area of FGJI} + \text{Area of HIG}) \times CH \\ &= ((FG)^2 + (0.5 \times IG \times HK)) \times CH \\ &= ((16.1)^2 + (0.5 \times 16.1 \times 17.1)) \times 8.1 \\ &= 3214.6 \text{ km}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of FGJI} + \text{Area of HIG})) + (\text{perimeter of FGHIJ} \times CH) \\ &= (2 \times ((FG)^2 + (0.5 \times IG \times HK))) + ((3 \times FG) + (2 \times GH)) \times CH \\ &= (2 \times ((16.1)^2 + (0.5 \times 16.1 \times 17.1))) + ((3 \times 16.1) + (2 \times 18.5)) \times 8.1 \\ &= 1484.7 \text{ km}^2 \end{aligned}$$

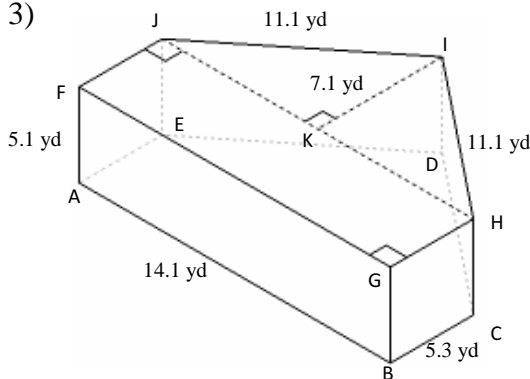
2)



$$\begin{aligned} V &= (\text{Area of ABCH} + \text{Area of LMNO}) \times AI \\ &= ((AB \times BC) + (LM \times MN)) \times AI \\ &= ((14.1 \times 10.1) + (3.2 \times 9.6)) \times 5.1 \\ &= 883.0 \text{ in}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of ABCH} + \text{Area of LMNO}) + (\text{perimeter of ABCDEFGH} \times AI) \\ &= (2 \times ((AB \times BC) + (LM \times MN))) + ((2 \times AB) + (2 \times BC) + (2 \times LM)) \times AI \\ &= (2 \times ((14.1 \times 10.1) + (3.2 \times 9.6))) + ((2 \times 14.1) + (2 \times 10.1) + (2 \times 3.2)) \times 5.1 \\ &= 625.7 \text{ in}^2 \end{aligned}$$

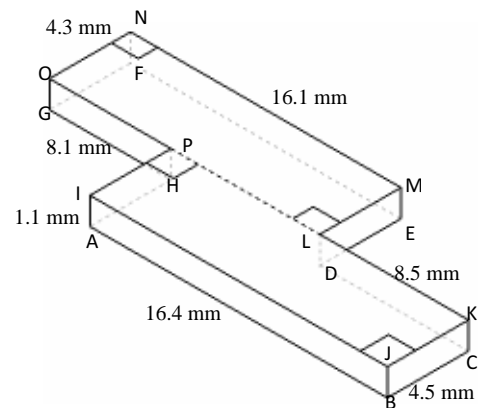
3)



$$\begin{aligned} V &= (\text{Area of FGHI} + \text{Area of HJI}) \times AF \\ &= (FG \times HI) + (0.5 \times HJ \times IK) \times AF \\ &= (14.1 \times 5.3) + (0.5 \times 14.1 \times 7.1) \times 5.1 \\ &= 636.4 \text{ yd}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of FGHI} + \text{Area of HJI})) + (\text{perimeter of FGHIJ} \times AF) \\ &= (2 \times (FG \times HI) + (0.5 \times HJ \times IK)) + ((FG) + (2 \times GH) + (2 \times IJ)) \times AF \\ &= (2 \times (14.1 \times 5.3) + (0.5 \times 14.1 \times 7.1)) + ((14.1) + (2 \times 5.3) + (2 \times 11.1)) \times 5.1 \\ &= 488.8 \text{ yd}^2 \end{aligned}$$

4)



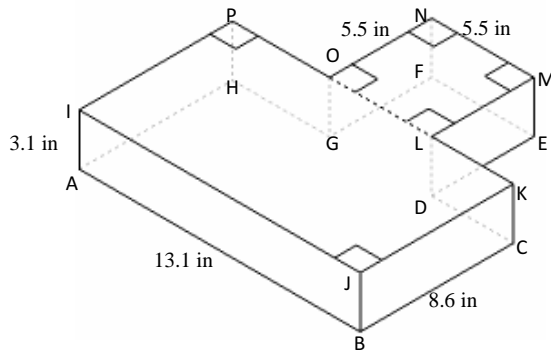
$$\begin{aligned} V &= (\text{Area of ABCH} + \text{Area of DEFG}) \times AI \\ &= ((AB \times BC) + (EF \times FG)) \times AI \\ &= ((16.4 \times 4.5) + (16.1 \times 4.3)) \times 1.1 \\ &= 157.3 \text{ mm}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of ABCH} + \text{Area of DEFG})) + (\text{perimeter of ABCDEFGH} \times AI) \\ &= (2 \times ((AB \times BC) + (EF \times FG))) + ((AB) + (2 \times CB) + CD + (2 \times FG) + GH) \times AI \\ &= (2 \times ((16.4 \times 4.5) + (16.1 \times 4.3))) + (16.4 + (2 \times 4.5) + 8.5 + (2 \times 4.3) + 8.1) \times 1.1 \\ &= 359.4 \text{ mm}^2 \end{aligned}$$

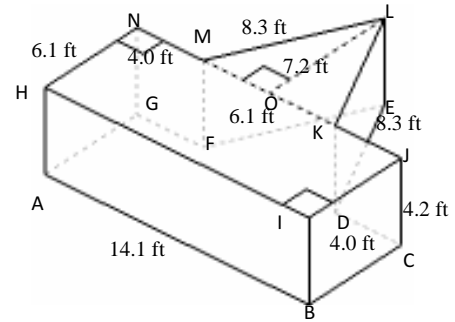
Volume and Surface Area of Composite Right Prisms (F)

Instructions: Find the volume and surface area for each composite right prism.

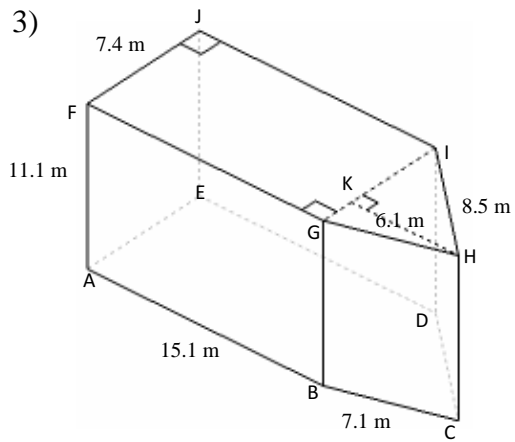
1)



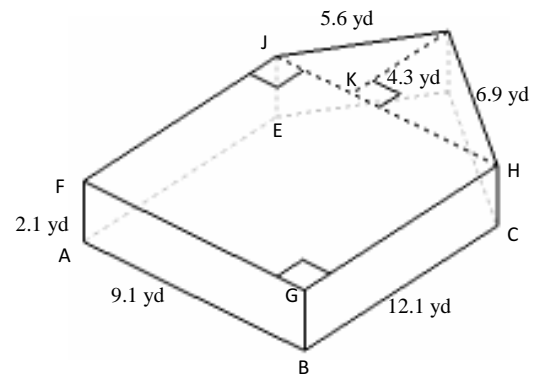
2)



3)



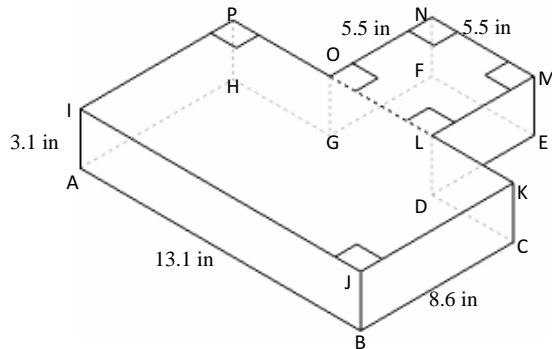
4)



Volume and Surface Area of Composite Right Prisms (F)

Instructions: Find the volume and surface area for each composite right prism.

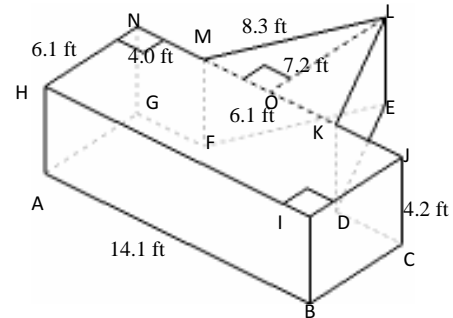
1)



$$\begin{aligned} V &= (\text{Area of } ABCH + \text{Area of } LMNO) \times AI \\ &= ((AB \times BC) + (MN)^2) \times AI \\ &= ((13.1 \times 8.6) + (5.5)^2) \times 3.1 \\ &= 443.0 \text{ in}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCH + \text{Area of } LMNO) + \\ &\quad (\text{perimeter of } ABCDEFGH \times AI) \\ &= (2 \times ((AB \times BC) + (MN)^2) + ((2 \times AB) + (2 \times BC) + (2 \times MN)) \times AI) \\ &= (2 \times ((13.1 \times 8.6) + (5.5)^2) + ((2 \times 13.1) + (2 \times 8.6) + (2 \times 5.5)) \times 3.1) \\ &= 454.5 \text{ in}^2 \end{aligned}$$

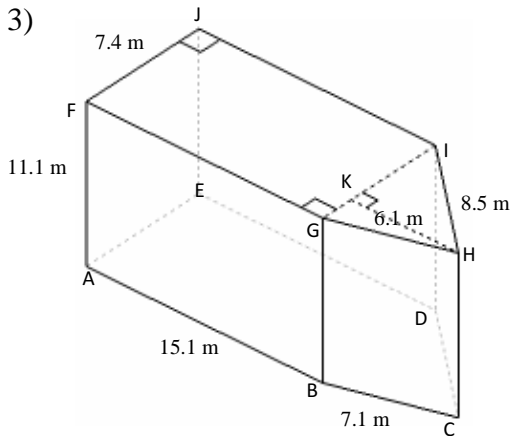
2)



$$\begin{aligned} V &= (\text{Area of } ABCG + \text{Area of } DEF) \times CJ \\ &= (AB \times BC) + (0.5 \times DF \times OL) \times CJ \\ &= (14.1 \times 6.1) + (0.5 \times 6.1 \times 7.2) \times 4.2 \\ &= 178.2 \text{ ft}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of } ABCG + \text{Area of } DEF)) + \\ &\quad (\text{perimeter of } ABCDEFG \times CJ) \\ &= (2 \times ((AB \times BC) + (0.5 \times DF \times OL))) + \\ &\quad ((AB + (2 \times BC) + (2 \times CD) + (2 \times DE)) \times CJ) \\ &= (2 \times ((14.1 \times 6.1) + (0.5 \times 6.1 \times 7.2))) + ((14.1 + (2 \times 6.1) + (2 \times 4.0) + (2 \times 8.3)) \times 4.2) \\ &= 429.7 \text{ ft}^2 \end{aligned}$$

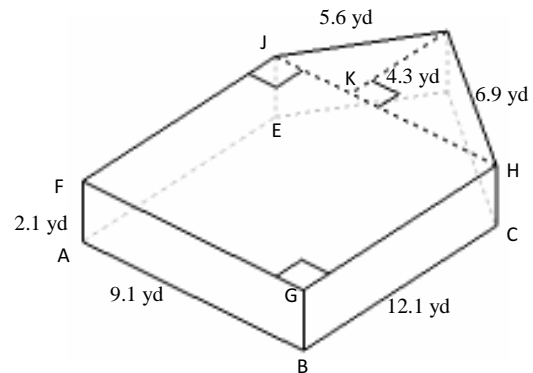
3)



$$\begin{aligned} V &= (\text{Area of } FGJI + \text{Area of } GHI) \times AF \\ &= ((FG \times GI) + (0.5 \times GI \times KH)) \times AF \\ &= ((15.1 \times 7.4) + (0.5 \times 7.4 \times 6.1)) \times 11.1 \\ &= 1490.8 \text{ m}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of } FGJI + \text{Area of } GHI)) + (\text{perimeter of } FGHI \times AF) \\ &= (2 \times ((FG \times GI) + (0.5 \times GI \times KH))) + ((2 \times FG) + GH + HI + FI) \times AF \\ &= (2 \times (15.1 \times 7.4) + (0.5 \times 7.4 \times 6.1)) + ((2 \times 15.1) + 7.1 + 8.5 + 7.4) \times 11.1 \\ &= 859.1 \text{ m}^2 \end{aligned}$$

4)



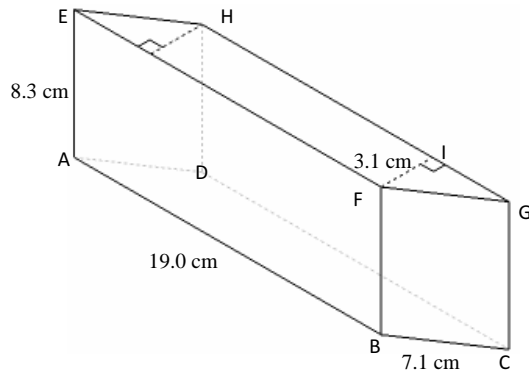
$$\begin{aligned} V &= (\text{Area of } FGHI + \text{Area of } HIJ) \times AF \\ &= ((FG \times GH) + (0.5 \times HJ \times IK)) \times AF \\ &= ((9.1 \times 12.1) + (0.5 \times 9.1 \times 4.3)) \times 2.1 \\ &= 272.3 \text{ yd}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of } FGHI + \text{Area of } HIJ)) + (\text{perimeter of } FGHI \times AF) \\ &= (2 \times ((FG \times GH) + (0.5 \times HJ \times IK))) + ((FG + (2 \times GH) + HI + IJ) \times AF) \\ &= (2 \times (9.1 \times 12.1) + (0.5 \times 9.1 \times 4.3)) + ((9.1 + (2 \times 12.1) + 6.9 + 5.6) \times 2.1) \\ &= 355.5 \text{ yd}^2 \end{aligned}$$

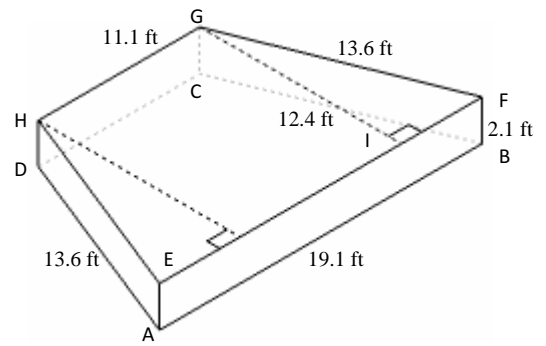
Volume and Surface Area of Right Prisms (G)

Instructions: Find the volume and surface area for each right prism.

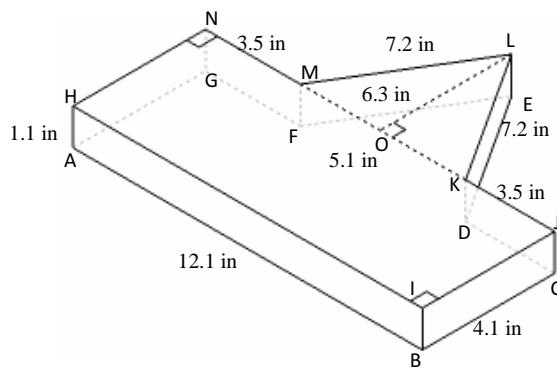
1)



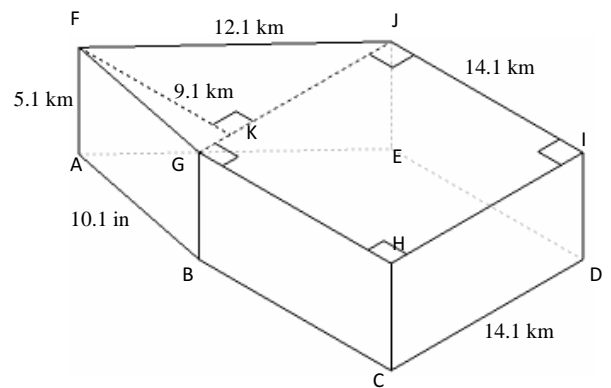
2)



3)



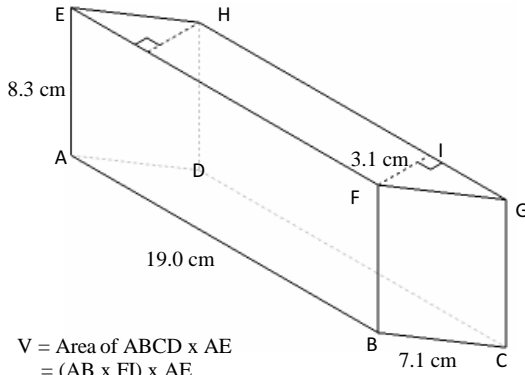
4)



Volume and Surface Area of Right Prisms Answer (G)

Instructions: Find the volume and surface area for each right prism.

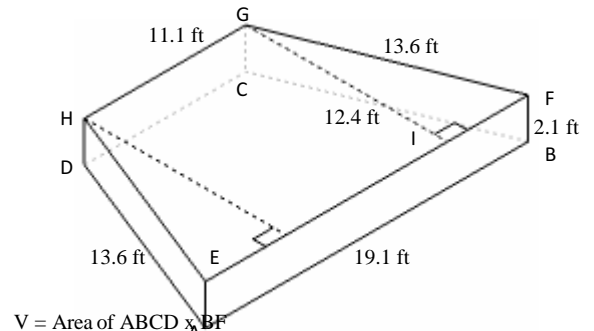
1)



$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (AB \times FI) \times AE \\ &= (19.0 \times 3.1) \times 8.3 \\ &= 488.9 \text{ cm}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (AB \times FI)) + (((2 \times AB) + (2 \times BC)) \times AE) \\ &= (2 \times (19.0 \times 3.1)) + (((2 \times 19.0) + (2 \times 7.1)) \times 8.3) \\ &= 551.1 \text{ cm}^2 \end{aligned}$$

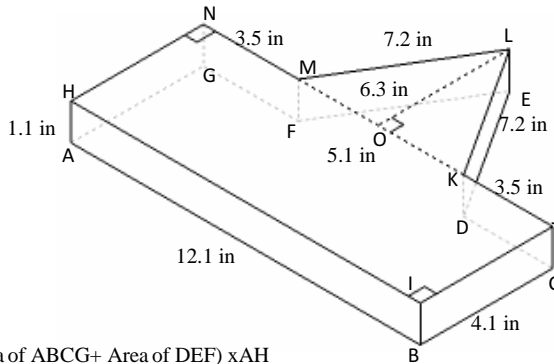
2)



$$\begin{aligned} V &= \text{Area of } ABCD \times BF \\ &= (0.5 \times (AB + CD) \times GI) \times ABF \\ &= (0.5 \times (19.1 + 11.1) \times 12.4) \times 2.1 \\ &= 393.2 \text{ ft}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times BF) \\ &= (2 \times (0.5 \times (AB + CD) \times GI)) + (((2 \times AD) + AB + CD) \times BF) \\ &= (2 \times (0.5 \times (19.1 + 11.1) \times 12.4)) + (((2 \times 13.6) + 19.1 + 11.1) \times 2.1) \\ &= 495.0 \text{ ft}^2 \end{aligned}$$

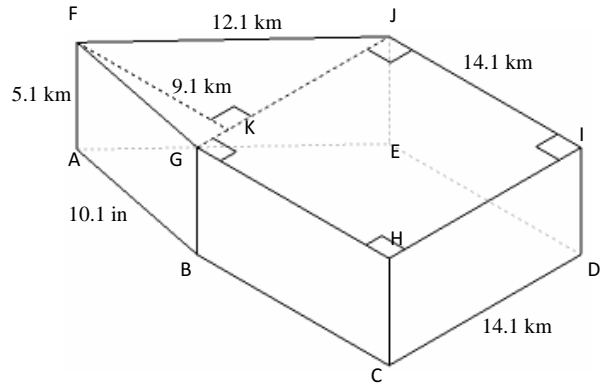
3)



$$\begin{aligned} V &= (\text{Area of } ABCG + \text{Area of } DEF) \times AH \\ &= ((AB \times BC) + (0.5 \times DF \times OL)) \times AH \\ &= ((12.1 \times 4.1) + (0.5 \times 5.1 \times 6.3)) \times 1.1 \\ &= 72.2 \text{ in}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of } ABCG + \text{Area of } DEF)) + (\text{perimeter of } ABCDEFG \times AH) \\ &= (2 \times ((AB \times BC) + (0.5 \times DF \times OL))) + ((AB + (2 \times BC) + (2 \times CD) + (2 \times DE)) \times AH) \\ &= (2 \times ((12.1 \times 4.1) + (0.5 \times 5.1 \times 6.3))) + ((12.1 + (2 \times 4.1) + (2 \times 3.5) + (2 \times 7.2)) \times 1.1) \\ &= 177.2 \text{ in}^2 \end{aligned}$$

4)



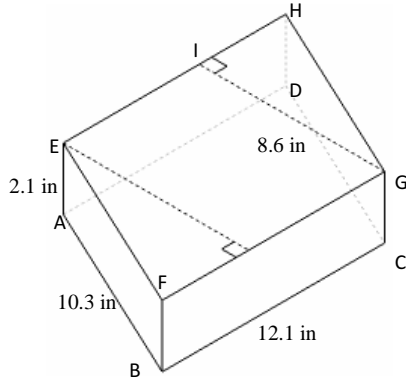
$$\begin{aligned} V &= (\text{Area of } FGJ + \text{Area of } GHI) \times AF \\ &= (HI)^2 + (0.5 \times GI \times KF) \times AF \\ &= (14.1)^2 + (0.5 \times 14.1 \times 9.1) \times 5.1 \\ &= 1341.1 \text{ m}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of } FGJ + \text{Area of } GHI)) + (\text{perimeter of } FGHIJ \times AF) \\ &= (2 \times ((HI)^2 + (0.5 \times GI \times KF))) + (((3 \times HI) + JF + FG) \times AF) \\ &= (2 \times ((14.1)^2 + (0.5 \times 14.1 \times 9.1))) + (((3 \times 14.1) + 12.1 + 10.1) \times 5.1) \\ &= 854.9 \text{ m}^2 \end{aligned}$$

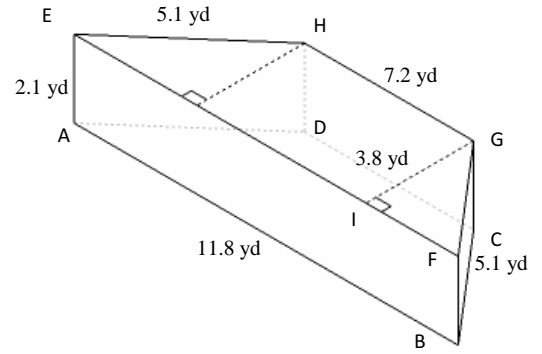
Volume and Surface Area of Right Prisms (H)

Instructions: Find the volume and surface area for each right prism.

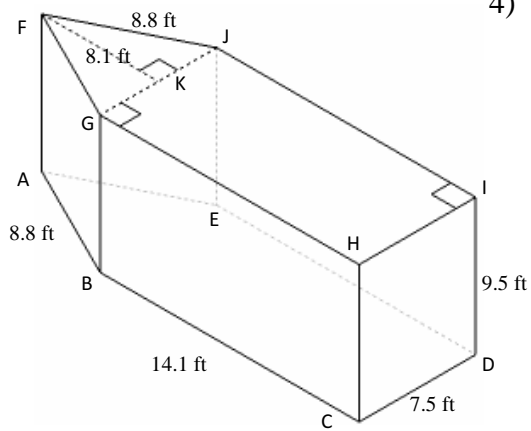
1)



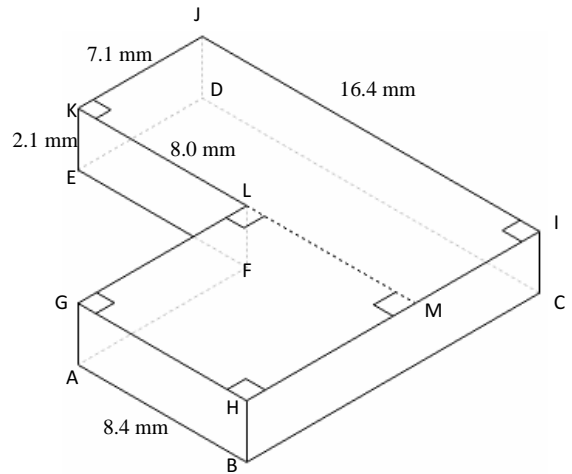
2)



3)



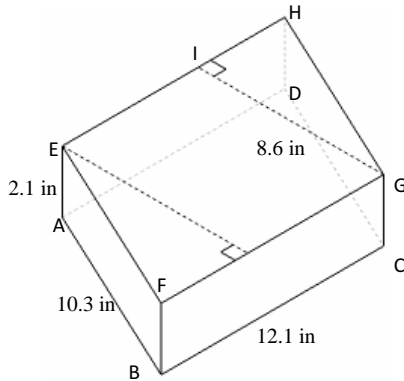
4)



Volume and Surface Area of Right Prisms Answer (H)

Instructions: Find the volume and surface area for each right prism.

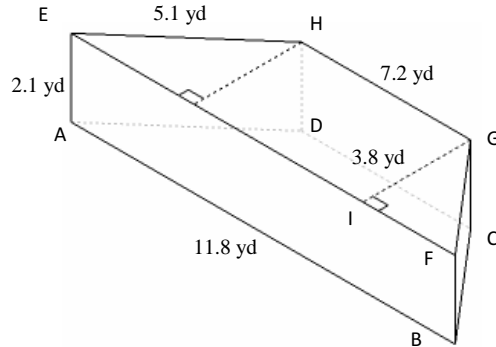
1)



$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (BC \times GI) \times AE \\ &= (12.1 \times 8.6) \times 2.1 \\ &= 218.5 \text{ in}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (BC \times GI)) + ((2 \times AB) + (2 \times BC)) \times AE \\ &= (2 \times (12.1 \times 8.6)) + (((2 \times 10.3) + (2 \times 12.1)) \times 2.1) \\ &= 302.2 \text{ in}^2 \end{aligned}$$

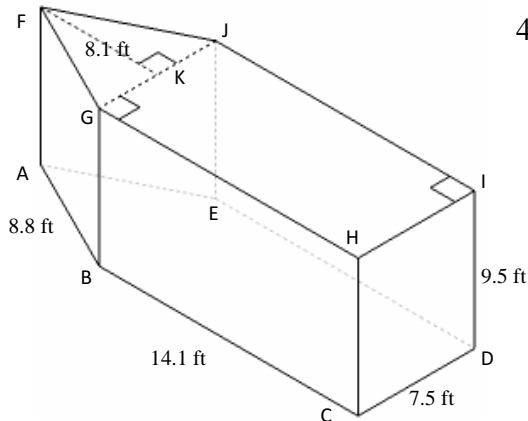
2)



$$\begin{aligned} V &= \text{Area of } ABCD \times BF \\ &= (0.5 \times (AB + CD) \times GI) \times BF \\ &= (0.5 \times (11.8 + 7.2) \times 3.8) \times 2.1 \\ &= 75.8 \text{ yd}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times BF) \\ &= (2 \times (0.5 \times (AB + CD) \times GI)) + (((2 \times AD) + AB + CD) \times BF) \\ &= (2 \times (0.5 \times (11.8 + 7.2) \times 3.8)) + (((2 \times 5.1) + 11.8 + 7.2) \times 2.1) \\ &= 133.5 \text{ yd}^2 \end{aligned}$$

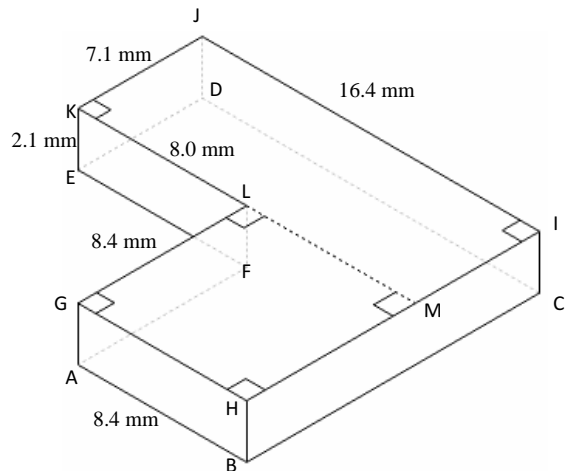
3)



$$\begin{aligned} V &= (\text{Area of } FGHI + \text{Area of } GHI) \times ID \\ &= ((HI \times GH) + (0.5 \times GI \times KF)) \times ID \\ &= ((7.5 \times 14.1) + (0.5 \times 7.5 \times 8.1)) \times 9.5 \\ &= 1293.2 \text{ ft}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of } FGHI + \text{Area of } GHI)) + (\text{perimeter of } FGHI \times ID) \\ &= (2 \times ((HI \times GH) + (0.5 \times GI \times KF))) + ((2 \times GH) + HI + (2 \times FG)) \times ID \\ &= (2 \times ((7.5 \times 14.1) + (0.5 \times 7.5 \times 8.1))) + ((2 \times 14.1) + 7.5 + (2 \times 8.8)) \times 9.5 \\ &= 778.6 \text{ ft}^2 \end{aligned}$$

4)



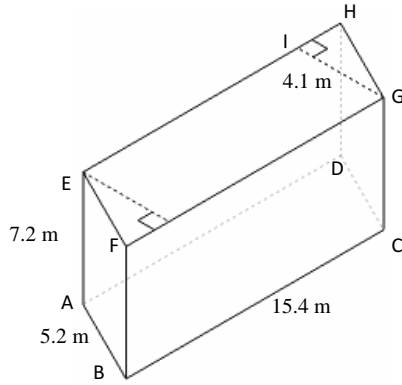
$$\begin{aligned} V &= (\text{Area of } GHML + \text{Area of } KMIJ) \times KE \\ &= ((GH)^2 + (IJ \times JK)) \times KE \\ &= ((8.4)^2 + (16.4 \times 7.1)) \times 2.1 \\ &= 392.7 \text{ mm}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of } GHML + \text{Area of } KMIJ)) + (\text{perimeter of } GHML \times KE) \\ &= (2 \times ((GH)^2 + (IJ \times JK))) + ((3 \times GH) + (2 \times JK) + IJ + KL) \times KE \\ &= (2 \times ((8.4)^2 + (16.4 \times 7.1))) + ((3 \times 8.4) + (2 \times 7.1) + 16.4 + 8.0) \times 2.1 \\ &= 508.0 \text{ mm}^2 \end{aligned}$$

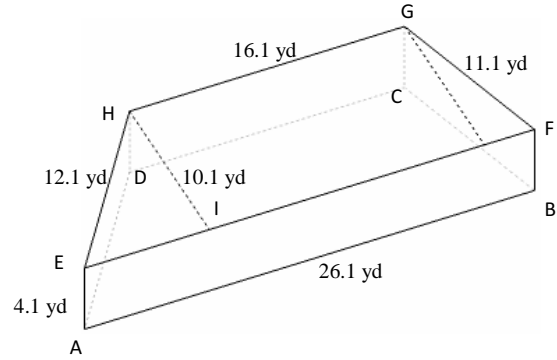
Volume and Surface Area of Right Prisms (I)

Instructions: Find the volume and surface area for each right prism.

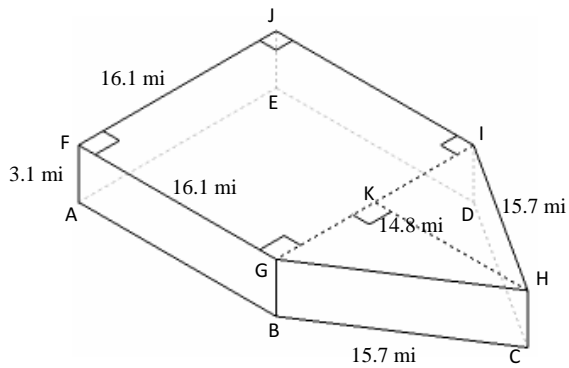
1)



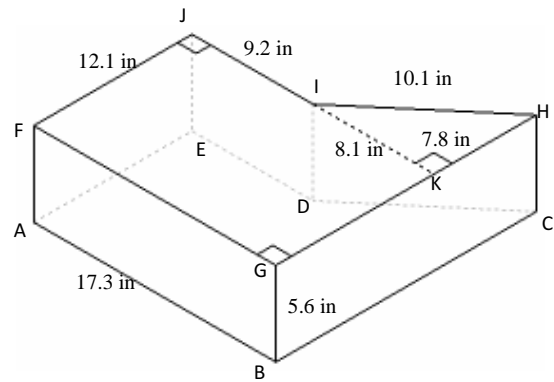
2)



3)



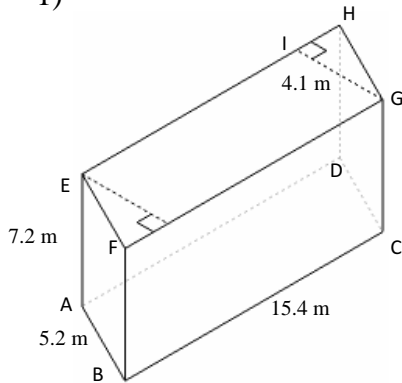
4)



Volume and Surface Area of Right Prisms Answer (I)

Instructions: Find the volume and surface area for each right prism.

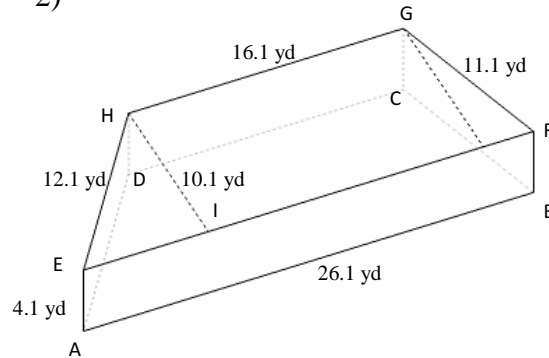
1)



$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (BC \times GI) \times AE \\ &= (15.4 \times 4.1) \times 7.2 \\ &= 454.6 \text{ m}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (BC \times GI)) + (((2 \times AB) + (2 \times BC)) \times AE) \\ &= (2 \times (15.4 \times 4.1)) + (((2 \times 5.2) + (2 \times 15.4)) \times 7.2) \\ &= 422.9 \text{ m}^2 \end{aligned}$$

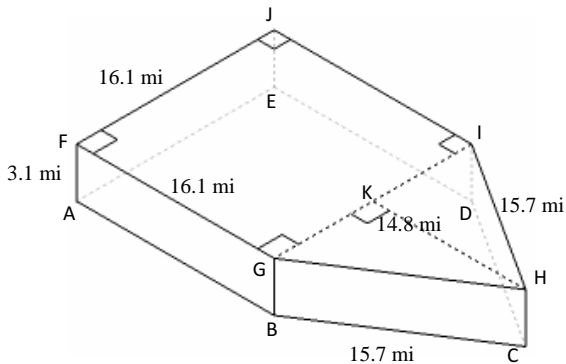
2)



$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (0.5 \times (AB + CD) \times HI) \times AE \\ &= (0.5 \times (26.1 + 10.1) \times 4.1) \\ &= 873.8 \text{ yd}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (0.5 \times (AB + CD) \times HI)) + ((AB + BC + CD + DA) \times AE) \\ &= (2 \times (0.5 \times (26.1 + 10.1) \times 4.1)) + ((26.1 + 11.1 + 16.1 + 12.1) \times 4.1) \\ &= 694.4 \text{ yd}^2 \end{aligned}$$

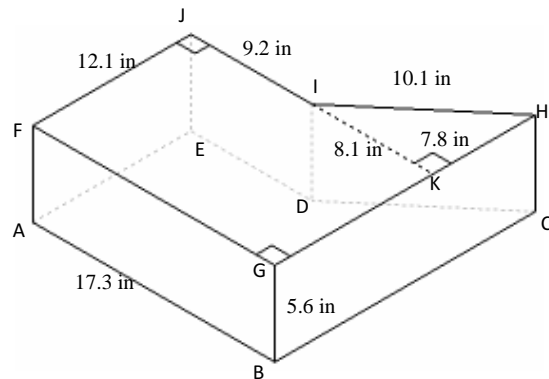
3)



$$\begin{aligned} V &= (\text{Area of } FGJI + \text{Area of } HIG) \times AF \\ &= ((FG)^2 + (0.5 \times IG \times HK)) \times AF \\ &= ((16.1)^2 + (0.5 \times 16.1 \times 14.8)) \times 3.1 \\ &= 1172.9 \text{ mi}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of } FGJI + \text{Area of } HIG)) + (\text{perimeter of } FGHI \times AF) \\ &= (2 \times ((FG)^2 + (0.5 \times IG \times HK))) + (((3 \times FG) + (2 \times GH)) \times AF) \\ &= (2 \times ((16.1)^2 + (0.5 \times 16.1 \times 14.8))) + (((3 \times 16.1) + (2 \times 15.7)) \times 3.1) \\ &= 1003.8 \text{ mi}^2 \end{aligned}$$

4)



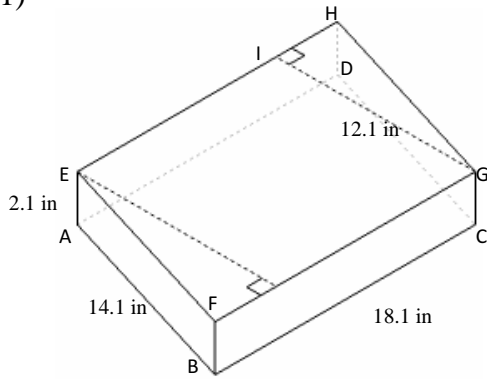
$$\begin{aligned} V &= (\text{Area of } FGKJ + \text{Area of } IHK) \times BG \\ &= ((FG \times FJ) + (0.5 \times KH \times IK)) \times BG \\ &= (17.3 \times 12.1) + (0.5 \times 7.8 \times 8.1) \times 5.6 \\ &= 1349.2 \text{ in}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of } FGKJ + \text{Area of } IHK)) + (\text{perimeter } FGKHI \times BG) \\ &= (2 \times ((FG \times FJ) + (0.5 \times KH \times IK))) + ((FG + (2 \times GK) + KH + IH + IJ) \times BG) \\ &= (2 \times ((17.3 \times 12.1) + (0.5 \times 7.8 \times 8.1))) + ((17.3 + (2 \times 12.1) + 7.8 + 10.1 + 9.2) \times 5.6) \\ &= 866.0 \text{ in}^2 \end{aligned}$$

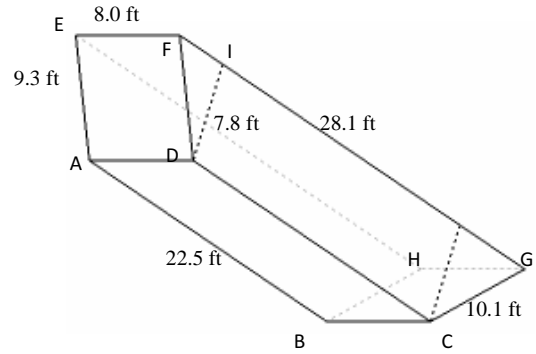
Volume and Surface Area of Right Prisms (J)

Instructions: Find the volume and surface area for each right prism.

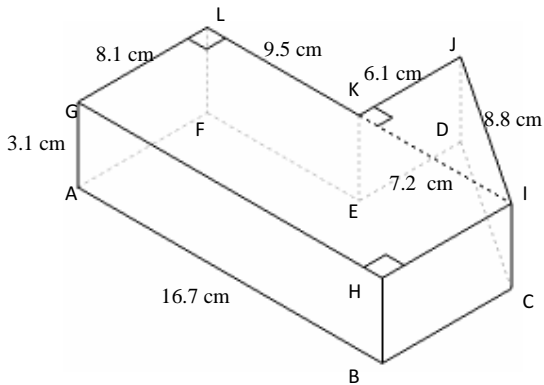
1)



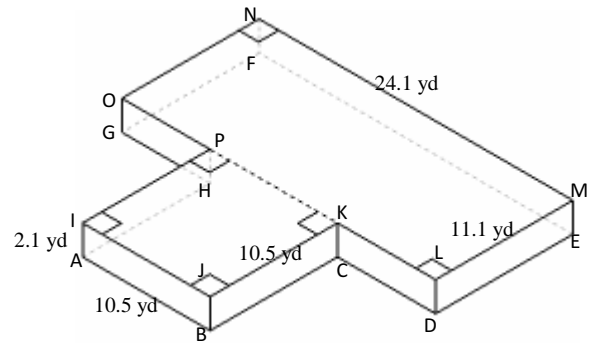
2)



3)



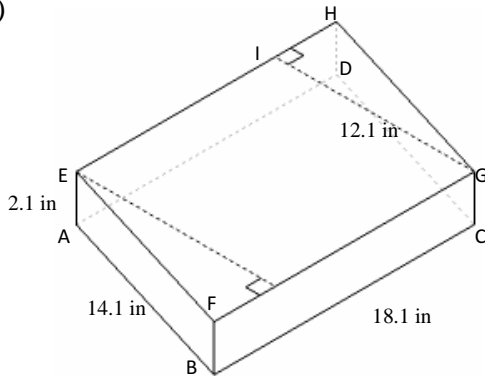
4)



Volume and Surface Area of Right Prisms Answer (J)

Instructions: Find the volume and surface area for each right prism.

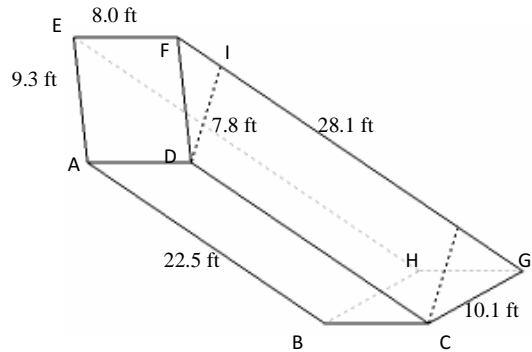
1)



$$\begin{aligned} V &= \text{Area of } ABCD \times AE \\ &= (BC \times GI) \times AE \\ &= (18.1 \times 12.1) \times 2.1 \\ &= 459.9 \text{ in}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } ABCD) + (\text{perimeter of } ABCD \times AE) \\ &= (2 \times (BC \times GI)) + ((2 \times AB) + (2 \times BC)) \times AE \\ &= (2 \times (18.1 \times 12.1)) + (((2 \times 14.1) + (2 \times 18.1)) \times 2.1) \\ &= 573.3 \text{ in}^2 \end{aligned}$$

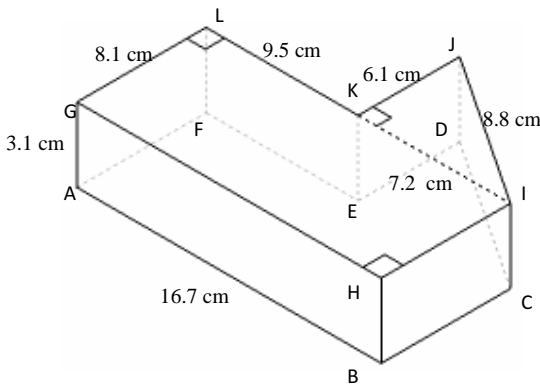
2)



$$\begin{aligned} V &= \text{Area of } CDFG \times EF \\ &= (0.5 \times (CD + FG) \times DI) \times EF \\ &= (0.5 \times (22.5 + 28.1) \times 7.8) \times 8.0 \\ &= 1578.7 \text{ ft}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times \text{Area of } CDFG) + (\text{perimeter of } CDFG \times EF) \\ &= (2 \times (0.5 \times (CD + FG) \times DI)) + ((CD + DF + FG + GC) \times EF) \\ &= (2 \times (0.5 \times (22.5 + 28.1) \times 7.8)) + ((22.5 + 9.3 + 28.1 + 10.1) \times 8.0) \\ &= 954.7 \text{ ft}^2 \end{aligned}$$

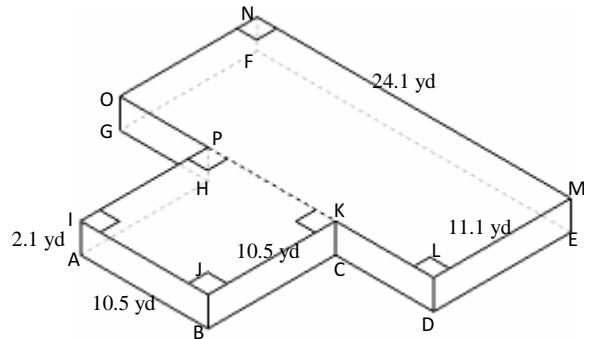
3)



$$\begin{aligned} V &= (\text{Area of } GHIL + \text{Area of } IJK) \times AG \\ &= ((GH \times GL) + (0.5 \times KJ \times IK)) \times AG \\ &= ((16.7 \times 8.1) + (0.5 \times 6.1 \times 7.2)) \times 3.1 \\ &= 487.4 \text{ cm}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of } GHIL + \text{Area of } IJK)) + (\text{perimeter of } FGHIJ) \times AG \\ &= (2 \times ((GH \times GL) + (0.5 \times KJ \times IK))) + ((GH + 2 \times HI) + IJ + JK + KL) \times AG \\ &= (2 \times ((16.7 \times 8.1) + (0.5 \times 6.1 \times 7.2))) + ((16.7 + (2 \times 8.1)) + 8.8 + 6.1 + 9.5) \times 3.1 \\ &= 492.1 \text{ cm}^2 \end{aligned}$$

4)



$$\begin{aligned} V &= (\text{Area of } ABCH + \text{Area of } DEFG) \times AI \\ &= ((AB)^2 + (EF \times ED)) \times AI \\ &= ((10.5)^2 + (24.1 \times 11.1)) \times 2.1 \\ &= 793.3 \text{ yd}^3 \end{aligned}$$

$$\begin{aligned} A &= (2 \times (\text{Area of } ABCH + \text{Area of } DEFG)) + (\text{perimeter of } ABCDEFGH) \times AI \\ &= (2 \times ((AB)^2 + (EF \times ED))) + (((2 \times AB) + (2 \times LM) + (2 \times MN)) \times AI) \\ &= (2 \times ((10.5)^2 + (24.1 \times 11.1))) + (((2 \times 10.5) + (2 \times 11.1) + (2 \times 24.1)) \times 2.1) \\ &= 947.5 \text{ yd}^2 \end{aligned}$$