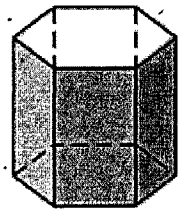
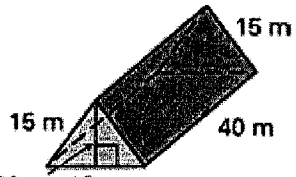
6. 

hexagonal prism
yes, a polyhedron
8 faces, 18 edges
12 vertices

Find the surface area of the solid.

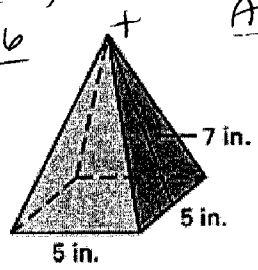
7. 

SA = 2,136 m²

2 triangles' area: $2(\frac{1}{2}bh)$, bh, $(18)(12)$, 216

L/R rect: $A = 2bh$, $A = 2(40)(15)$, $A = 1200$

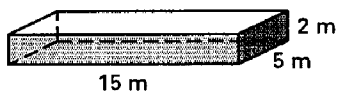
bottom rect: $A = bh$, $A = (40)(18)$, $A = 720$

8. 

SA = 95 in²

Square base: $A = bh$, $A = 5(5)$, $A = 25$

4 triangles: $4(\frac{1}{2}bh)$, $2bh$, $2(5)(7)$, $A = 70$

9. 

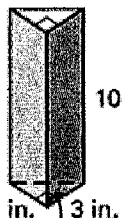
F/B: $2bh = A$, $2(15)(2)$, $60 = A$

L/R: $A = 2bh$, $A = 2(5)(2)$, $A = 20$

T/B: $A = 2bh$, $A = 2(15)(5)$, $A = 150$

SA = 230 m²

Find the volume of the solid.

10. 

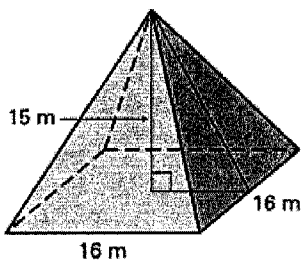
$V = Bh$

$V = (\text{area of base})(\text{prism height})$

$V = (\frac{1}{2}bh)(\text{prism height})$

$V = (\frac{1}{2})(3 \cdot 3)(10)$

$V = 45 \text{ in}^3$

11. 

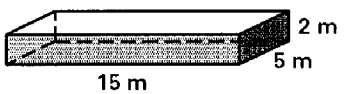
$V = \frac{1}{3}Bh$

$V = \frac{1}{3}(\text{area of base})(\text{pris ha})$

$V = \frac{1}{3}(16)(16)(15)$

$V = 5(256)$

$V = 1{,}280 \text{ m}^3$

12. 

$V = Bh$

$V = (lw)h$

$V = (15)(5)(2)$

$V = 150 \text{ m}^3$