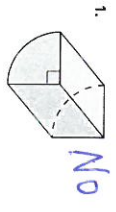
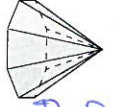


12.1-12.3 Quiz

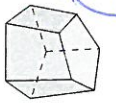
Tell whether the solid is a polyhedron. If it is, name the polyhedron. (Section 12.1)



1. No

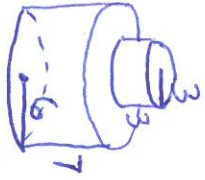
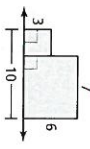


2. Octagonal Pyramid

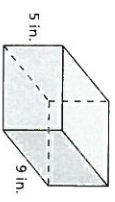


3. No

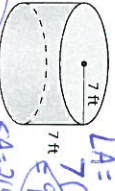
4. Sketch the composite solid produced by rotating the figure around the given axis. Then identify and describe the composite solid. (Section 12.1)



Find the lateral area and the surface area of the right prism or right cylinder. (Section 12.2)



5.



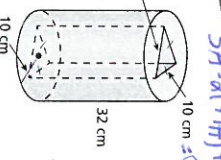
6.



7.

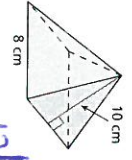
$LA = 2(7 \cdot 9) + 2(5 \cdot 9) = 216 + 90 = 306$
 $SA = 2(16 + 2(5 \cdot 7)) = 2(16 + 70) = 2(86) = 172$
 $LA = 20\pi \cdot 32 = 640\pi + 2(10 \cdot 32) = 1024$

8. Find the lateral area and the surface area of the composite solid. (Section 12.2)

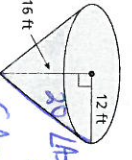


$LA = 2\pi(10)(32) = 1280\pi$
 $SA = 200\pi - 96 + 640\pi + 1024$
 $SA = 928\pi + 840$
 $SA = 468 m^2$
 $LA = 360 m^2$

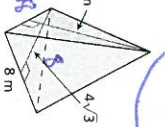
Find the lateral area and the surface area of the regular pyramid or right cone. (Section 12.3)



9.

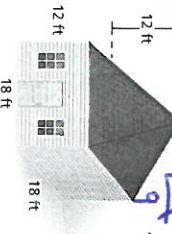


10.



11.

$LA = 4(18 \cdot 10) = 720$
 $SA = 160 cm^2 + 720 = 880$

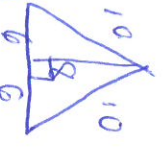


12.

You are replacing the siding and the roofing on the house shown. You have 900 square feet of siding, 500 square feet of roofing material, and 2000 square feet of tarp, in case it rains. (Section 12.3)

- Do you have enough siding to replace the siding on all four sides of the house? Explain. **Yes**
- Do you have enough roofing material to replace the entire roof? Explain. **Yes**
- Do you have enough tarp to cover the entire house? Explain.

$SA = 144\pi + 240\pi = 384\pi$
 $SA = 8(45) = 360$
 $SA = 165 + 20$



9) SA of House \neq No Roof or Floor

$= 4(18 \cdot 12) = 864$

Yes since $900 > 864$

b) LA of Roof Pyramid

$4(18 \cdot 15) = 540 ft^2$

No since $540 > 500$

c) Yes. $2000 > 864 + 540$