# CONCEPT REINFORCEMENT:

***MMS9***

**PAGE 40: #3, 4 and 5**
**PAGE 41: #6 (count bottom), 8 (no bottom but have to paint overhang) and 9 (no bottoms)**
**PAGE 42: #10, 11 (no bottom) and 13**
**PAGE 43: #14 (no bottom) and 15 (the cylinder is solid, not hollow)**

Homework: Page 43 14 & 15

Problems with the homework?

Page 43 14 (no bottom), 15 (solid)

14. Cylinder $A = 2\pi r^2 + 2\pi rh$

$A_{top} = 2\pi r^2 + 2\pi rh$
$= 2\pi(22)^2 + 2\pi(22)(13)$
$= 968\pi + 572\pi$
$= 1540\pi$

$A_{middle} = 2\pi rh$
$= 2\pi(15)(40)$
$= 1200\pi$

$A_{bottom} = \pi r^2 + 2\pi rh$
$= \pi(22)^2 + 2\pi(22)(13)$
$= 484\pi + 572\pi$
$= 1056\pi$

$A_{hole} = \pi r^2 + 2\pi rh$
$= \pi(15)^2 + 2\pi(15)(2)$
$= 225\pi + 60\pi$
$= 285\pi$

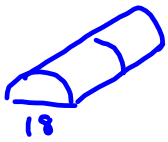
$overlap = 2\pi r^2$
$= 2\pi(15)^2$
$= 450\pi$

$overlap\ (hole) = 225\pi$

$A_{total} = 1540\pi + 1200\pi + 1056\pi + 285\pi - 450\pi - 225\pi$

$= 3406\pi$
$= 10700\ cm^2$

15. b)




$A = (2\pi r^2 + 2\pi rh) \div 2$

$= \pi r^2 + \pi rh$

$= \pi(9)^2 + \pi(9)(100)$

$= 81\pi + 900\pi$

$= 981\pi$

$A_{cover} = 18 \times 100$

$= 1800$

$A_{total} = 981\pi + 1800$

$\approx 4882\ cm^2$

| | |
|---|---|
| Cylinder | $A = 2\pi r^2 + 2\pi rh$ |
| Rectangle | $A = b \times h$ |
| Triangle | $A = \frac{b \times h}{2}$ |
| Pythagorean Theorem | $c^2 = a^2 + b^2$ (long side) $\quad a^2 = c^2 - b^2$ (short side) |

# Homework: Extra Practice 3

1. d) $7 \times 6 = 42$

overlap $= 6 \times 2$
$= 12$

$42 - 12 = 30$

omit #2