

HW 118

$$1. 310 = \frac{1}{2} b(32)$$

$$310 = 16b$$

$$\boxed{19.38 \text{ cm} = b}$$

$$2. 38 = 2b(h)$$

$$\boxed{1.46 \text{ cm} = h}$$

$$3. \text{length: } 2\pi(10)\left(\frac{42}{360}\right)$$

$$= \frac{7}{3}\pi$$

$$\text{area: } \pi(10)^2\left(\frac{42}{360}\right)$$

$$= \frac{35}{3}\pi$$

$$4. \frac{24+18}{2} \cdot 22 = \boxed{462 \text{ in}^2}$$

$$5. 81\pi = \pi r^2$$

$$r = 9$$

$$C = 2\pi r$$

$$C = 2\pi(9)$$

$$\boxed{C = 18\pi}$$

$$6. 82\pi = 2\pi r^2$$

$$r = \sqrt{82}$$

$$\boxed{d = 2\sqrt{82}}$$

$$7. 228 = \frac{44+32}{2} \cdot h$$

$$228 = 38h$$

$$\boxed{6 \text{ in} = h}$$

~~$$8. 20(24) + 8(24)$$~~

$$8. 20(24) - \frac{1}{2}(12+20)(12)$$

$$480 - 192$$

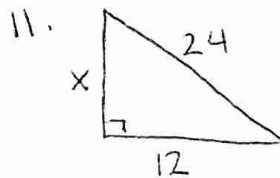
$$\boxed{288 \text{ ft}^2}$$

$$9. \pi 9^2 \left(\frac{90}{360}\right) - \frac{1}{2}(9)(9)$$

$$\frac{81}{4}\pi - \frac{81}{2} \approx \boxed{23.12 \text{ in}^2}$$

$$10. 24(24) - \pi(12)^2$$

$$\boxed{576 - 144\pi \text{ m}^2}$$



$$x^2 + 144 = 576$$

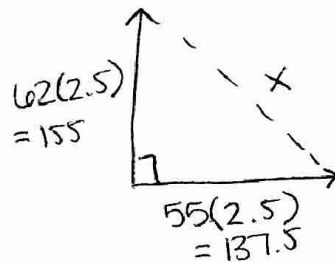
$$x^2 = 432$$

$$\boxed{x = 20.78 \text{ ft}}$$

OR

$$x^2 + 144 = (24-x)^2$$
$$x^2 + 144 = 576 - 2x + x^2$$
$$2x = 432$$
$$x = 216 \text{ ft}$$

12.



$$x^2 = 155^2 + 137.5^2$$

$$\boxed{x = 207.2 \text{ miles}}$$