

## Answers Chapter 7 Checkpoint Quiz 1 & 2

### Front page, L7.1 – L7.3

1)  $A = b \cdot h = 12 \cdot 3.1 = 37.2m^2$

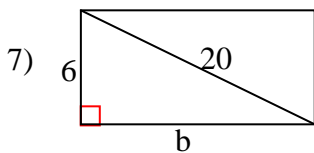
2)  $A = \frac{1}{2}b \cdot h = \frac{1}{2} \cdot 4 \cdot 10 = 20ft^2$

3)  $A = \frac{1}{2}b \cdot h$ ;  $48 = \frac{1}{2} \cdot 10 \cdot h$ ;  $h = \frac{48}{5} = 9.6m$

4)  $A = b \cdot h$ ;  $183 = b \cdot 3$ ;  $b = 61in$

5) *Pythag Thm*:  $x^2 = 4^2 + 6^2$ ;  $x = \sqrt{52} = 2\sqrt{13} \approx 7.2$

6)  $45 - 45 - 90$ :  $\sqrt{2}x = 14$ ;  $x = \frac{14}{\sqrt{2}} = 7\sqrt{2} \approx 9.9$



$$b = \sqrt{20^2 - 6^2} = 19.078$$

$$A = b \cdot h = (19.078)(6) \approx 114.5m^2$$

### Back page, L7.4 – L7.7

1)  $A = \frac{1}{2}h(b_1 + b_2) = \frac{1}{2}(6)(10 + 11) = 63m^2$

2)  $A = bh = (8)(12) = 96m^2$

3)

$$\text{Kite: } A = d_1 d_2$$

$$d_1 : 2 \cdot 5 = 10$$

$$d_2 : \text{upper part} : \sqrt{6^2 - 5^2} = 3.316$$

$$\text{lower part} : \sqrt{8^2 - 5^2} = 6.244$$

$$3.316 + 6.244 = 9.56$$

$$A = \frac{1}{2}(10)(9.56) = 47.8cm^2$$

4)  $A = \frac{1}{2}ap$ ;  $a = 8$ ;  $p = 5 \cdot 10 = 50$ ;  $A = \frac{1}{2}(8)(50) = 200ft^2$

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$$5) A = \frac{1}{2}ap; a = 12; p = 6 \cdot 18 = 108; A = \frac{1}{2}(12)(108) = 648m^2$$

6)

$$A = \frac{1}{2}h(b_1 + b_2); \text{ Isos Trap...base is } 3 + 10 + 3$$

$$\text{Left } \Delta: \text{ hyp} = 8, a = 3, b = h; h = \sqrt{8^2 - 3^2} = 7.416$$

$$A = \frac{1}{2}(7.416)(10 + 16) \approx 96.4in^2$$

$$7) \text{ base} = 4 + 10; x = \sqrt{8^2 - 4^2} \approx 6.9in$$

8)

$$x = a + 12 + b$$

$$a = \sqrt{7^2 - 6^2} = 3.605$$

$$b = \sqrt{8^2 - 6^2} = 5.292$$

$$x = 3.605 + 12 + 5.292 \approx 20.9ft$$

$$9) A_{\text{sec}} = \frac{\widehat{\text{marc}}}{360} \cdot A_{\text{circle}} = \frac{120}{360} \pi 6^2 = \frac{1}{3} \pi 36 = 12\pi in^2$$

$$10) A_{\text{sec}} = \frac{\widehat{\text{marc}}}{360} \cdot A_{\text{circle}} = \frac{270}{360} \pi 12^2 = \frac{3}{4} \pi 144 = 108\pi m^2$$