

Answers to Textbook Questions

Pg 156 #4

a) $A = 6x + 9$ Given: $A = 39 \text{ cm}^2$

$$\boxed{x = 5 \text{ cm}}$$

b) $A = 2x^2 + 6x + 4$ Given: $A = 144 \text{ cm}^2$

$$\boxed{x = 7 \text{ cm}}$$

c) $A = 3x^2 + 2.5x - 2$ Given $A = 121 \text{ cm}^2$

$$\boxed{x = 6 \text{ cm}}$$

Pg 157 #11

a) $(2x - 3)(2x + 3)$

b) $4x(x - 2)$

c) $(2x - 1)^2$

d) $(x - 3)^2$

e) $(x - \sqrt{6})(x + \sqrt{6})$

f) $(x - \frac{1}{2})^2$

g) $2(x^2 + 8xy + 8y^2)$ or $2(x + 6.828y)(x + 1.176y)$

h) $(5x - 1)(x + 1)$

i) $(3x + 4)(x + 2)$

Pg 171 #9

$$\text{dm}^2 \rightarrow \text{cm}^2$$

2 decimal places per step

$$A = P_b \times h + 2A_b$$

$$(4x + 12)(x) + 2(x^2 + 6x + 5) = 1720 \text{ cm}^2$$

$$6(x^2 + 4x - 285) = 0$$

$$6(x - 15)(x + 19)$$

$$x - 15 = 0 \text{ or } x + 19 = 0$$

$$\boxed{x = 15 \text{ cm}}$$