

p. 666) 3-11 odd, 12-14, 26

③ 9

⑤ 4

⑦ 2.25

⑨ 1.44

⑪ $\frac{4}{9}$

⑫ $x = -3, 1$

⑬ $x = -12, 2$

⑭ $c = -1, 15$

⑫ didn't add 49 to the right side

Solutions

③ $x^2 + 6x + c$

	x	3
x		
3		9

$c = 9$

$\frac{6}{2} = 3$

⑤ $x^2 - 4x + c$

	x	-2
x		
-2		4

$c = 4$

$\frac{-4}{2} = -2$

⑦ $x^2 - 3x + c$

	x	-1.5
x		
-1.5		2.25

$c = 2.25$

$\frac{-3}{2} = -1.5$

⑨ $x^2 + 2.4x + c$

	x	1.2
x		
1.2		1.44

$c = 1.44$

$\frac{2.4}{2} = 1.2$

⑪ $x^2 - \frac{4}{3}x + c$

	x	$-\frac{2}{3}$
x		
$-\frac{2}{3}$		$\frac{4}{9}$

$c = \frac{4}{9}$

$\frac{-\frac{4}{3}}{2} = -\frac{4}{3} \cdot \frac{1}{2} = -\frac{4}{6} = -\frac{2}{3}$

⑫ $x^2 + 2x = 3$
 $x^2 + 2x + 1 = 3 + 1$
 $\sqrt{(x+1)^2} = \sqrt{4}$

$x+1 = \pm 2$

$x = -1 \pm 2$

$x = -1 + 2$ & $x = -1 - 2$

$x = 1$

$x = -3$

⑬ $x^2 + 10x = 24$ $\frac{10}{2} = 5$

$x^2 + 10x + 5^2 = 24 + 5^2$

⑭ $c^2 - 14c = 15$

$c^2 - 14c + (-7)^2 = 15 + (-7)^2$

$$x^2 + 10x + 5^2 = 24 + 5^2$$

$$\sqrt{(x+5)^2} = \sqrt{49}$$

$$\begin{array}{r} x+5 = \pm 7 \\ -5 \quad -5 \\ \hline \end{array}$$

$$x = -5 \pm 7$$

$$x = -12, 2$$

$$(11) \quad c^2 - 14c + 49 = 15 + 49$$

$$c^2 - 14c + (-7)^2 = 15 + (-7)^2$$

$$\sqrt{(c-7)^2} = \sqrt{64}$$

$$\begin{array}{r} c-7 = \pm 8 \\ +7 \quad +7 \\ \hline \end{array}$$

$$c = 7 \pm 8$$

$$c = -1, 15$$