

10.6 pg. 674) 6-12 even, 17-25 odd, 26

⑥ $-2.62, -0.38$ ⑧ $-4.32, 1.84$ ⑩ $-3.21, 1.71$

⑫ B ⑰ $3.27, 6.73$ ⑱ $-0.54, 2.29$

⑲ $-0.66, 1.09$ ⑳ $-1.77, -0.57$ ㉓ B

㉔ the first term should be $-b \Rightarrow$ so 5 not -5

$$x = \frac{5 \pm \sqrt{(-5)^2 - 4(7)(-1)}}{2(7)}$$

Solutions!

⑥ $m^2 + 3m + 1 = 0$
 $a=1 \quad b=3 \quad c=1$

$$m = \frac{-3 \pm \sqrt{3^2 - 4(1)(1)}}{2(1)}$$

$$m = \frac{-3 \pm \sqrt{9 - 4}}{2}$$

$$m = -3 \pm \sqrt{5}$$

⑧ $-2n^2 - 5n + 16 = 0$
 $a=-2 \quad b=-5 \quad c=16$

$$n = \frac{5 \pm \sqrt{(-5)^2 - 4(-2)(16)}}{2(-2)}$$

$$n = \frac{5 \pm \sqrt{25 + 128}}{-4}$$

$$n = 5 \pm \sqrt{153}$$

$$\frac{\quad}{2}$$

$$m \approx -2.62, -0.38$$

$$-4$$

$$n = -4.34, 1.84$$

$$(10) \quad 2t^2 + 3t - 11 = 0$$

$$a=2 \quad b=3 \quad c=-11$$

$$t = \frac{-3 \pm \sqrt{3^2 - 4(2)(-11)}}{2(2)}$$

$$t = \frac{-3 \pm \sqrt{9 + 88}}{4}$$

$$t = \frac{-3 \pm \sqrt{97}}{4}$$

$$t = -3.21, 1.71$$

$$(12) \quad 10x^2 - 3x - 1 = 0$$

$$a=10 \quad b=-3 \quad c=-1$$

$$x = \frac{3 \pm \sqrt{(-3)^2 - 4(10)(-1)}}{2(10)}$$

$$x = \frac{3 \pm \sqrt{49}}{20}$$

$$x = \frac{3 \pm 7}{20}$$

$$x = \frac{10}{20} = \frac{1}{2} \quad x = \frac{-4}{20} = -\frac{1}{5}$$

B

$$(17) \quad \begin{array}{r} -10 = r^2 - 10r + 12 \\ +10 \qquad \qquad \qquad +10 \\ \hline 0 = r^2 - 10r + 22 \\ a=1 \quad b=-10 \quad c=22 \end{array}$$

$$r = \frac{10 \pm \sqrt{(-10)^2 - 4(1)(22)}}{2(1)}$$

$$r = \frac{10 \pm \sqrt{12}}{2}$$

$$r = 3.27, 6.73$$

$$(19) \quad \begin{array}{r} 6z^2 = 2z^2 + 7z + 5 \\ -6z^2 \quad -6z^2 \\ \hline 0 = -4z^2 + 7z + 5 \\ a=-4 \quad b=7 \quad c=5 \end{array}$$

$$z = \frac{-7 \pm \sqrt{7^2 - 4(-4)(5)}}{2(-4)}$$

$$z = \frac{-7 \pm \sqrt{129}}{-8}$$

$$z = -.54, 2.29$$

$$(21) \quad \begin{array}{r} 4t^2 - 3t = 5 - 3t^2 \\ +3t^2 \quad -5 \quad -5 + 3t^2 \\ \hline 7t^2 - 3t - 5 = 0 \\ a=7 \quad b=-3 \quad c=-5 \end{array}$$

$$t = \frac{3 \pm \sqrt{(-3)^2 - 4(7)(-5)}}{2(7)}$$

$$(23) \quad \begin{array}{r} 7n + 5 = -3n^2 + 2 \\ -7n \quad -5 \qquad \qquad -7n \quad -5 \\ \hline 0 = -3n^2 - 7n - 3 \\ a=-3 \quad b=-7 \quad c=-3 \end{array}$$

$$n = \frac{7 \pm \sqrt{(-7)^2 - 4(-3)(-3)}}{2(-3)}$$

$$t = \frac{3 \pm \sqrt{(-3)^2 - 4(7)(-5)}}{2(7)}$$

$$t = \frac{3 \pm \sqrt{149}}{14}$$

$$t = -0.66, 1.09$$

$$n = \frac{7 \pm \sqrt{(-7)^2 - 4(-3)(-3)}}{2(-3)}$$

$$n = \frac{7 \pm \sqrt{13}}{-6}$$

$$n = -1.77, -0.57$$

$$(25) \quad \begin{array}{r} x^2 + 14x = 2x - 11 \\ -2x + 11 \quad -2x + 11 \\ \hline \end{array}$$

$$x^2 + 12x + 11 = 0$$

$$(x+11)(x+1) = 0$$

$$x+11=0 \quad x+1=0$$

$$x = -11 \quad x = -1$$

B