

**Even Answers to Bold Problems from Textbook**  
**Problems that are to be completed on paper.**

**Lesson 3(a)**

Algebra part of text, Section 5.4:

Page 324

10)  $-30y^2 + 5y$

12)  $-12a^4 + 3a^5$

40)  $6m^2 + 7mn - 5n^2$

98)  $A = x^4 + 16x^2 + 64$

100)  $A = x^3 + \frac{7}{2}x^2 + 7x + 6$

**Lesson 4**

Page 61

40)  $k = -6$

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4)  $k = -\frac{3}{8}$       29)  $x = -\frac{59}{6}$

**Lesson 5**

Page 92

26) 2 miles

28) 55 miles per hour

**Lesson 6**

Page 567

14)  $x = \frac{1}{4} + \frac{\sqrt{5}}{4}, \frac{1}{4} - \frac{\sqrt{5}}{4}$

Summary (p. 567)

3)  $n = -3 - \sqrt{5}, -3 + \sqrt{5}$

5)  $m = -\frac{3}{2}, m = 4$

7)  $r = 1 - \frac{1}{2}\sqrt{2}, r = 1 + \frac{1}{2}\sqrt{2}$

11)  $k = -\frac{3}{2} - \sqrt{2}, k = -\frac{3}{2} + \sqrt{2}$

14)  $x = \frac{1}{4} - \frac{1}{4}\sqrt{5}, \frac{1}{4} + \frac{1}{4}\sqrt{5}$

17)  $t = \frac{3}{2}$

21)  $x = -4, x = 9$

Page R.16

34)  $a = 1$  only

**Lesson 8**

38) negative slope C

40) undefined slope D

8) D

10) F

12) G

14) E

16)  $y = -x + 6$

18)  $x = -8$

20)  $y = -x + 7$

24)  $y = 3$

26)  $2x - y = -4$

64) (a)  $y = 0.053x - 0.042$

(b) about 10.2 years

68) (a)  $N = -1.389t + 215$  (b) year 2019

70) (a)  $y$  (age at first marriage for men)  $= 0.096t + 24.7$  where  $t$  is number of years since 1980

(b)  $y$  (age at first marriage for women)  $= 0.132t + 22$   
where  $t$  is number of years since 1980

70 (continued)

(c) The median age of first marriage is increasing faster for women than for men in the years since 1980.

(d) During the year 2036, the median age of first marriage for men will be about 30.

(e) When the median age for men is 30, the median age of a first marriage for women is about 29.

72) (a)  $T = 0.03t + 15$  (b) year 2103

74) (a)  $N = 38.5t + 1100.5$  (b) The equation estimates that the number of radio stations in 2008 with news/talk will be about 1408 or 1409. The actual number was much greater. The pattern changed in 2008.