

## **PRE-CALCULUS ERRATA**

**November 3, 2010**

### **Errors in the current edition:**

- 1) Problem Set 5, problem 12. On the CD, the explanation was cut short.
- 2) Problem Set 6, problem 5. On the CD, the answer for the  $x$ -values are incorrect. They should have been -1, -0.5, -0.25, 0, 1, and 2.
- 3) Problem Set 86, problems C and 18. The simplification steps were not correct. The answer to #C should be -6 and the answer to #18 should be -4.

### **Errors that occurred in old printings. You may encounter these if you bought Pre-Calculus before November 3<sup>rd</sup>, 2010:**

- 1) Lesson 4, page 32, Figure 4.7. Change captions from “Rotate across  $y$ -axis” to “Reflect across  $y$ -axis” and “Rotate across  $x$ -axis” to “Reflect across  $x$ -axis.”
- 2) Lesson 5, page 41, 7<sup>th</sup> line of text. The word “function” should be “ $x$ .”
- 3) Lesson 5, page 42, under Figure 5.7. Change “Multiplying by  $\frac{1}{2}$  compresses the parabola, making it wider.” to “Multiplying by  $\frac{1}{2}$  compresses the parabola vertically.”
- 4) Lesson 5, page 43, last paragraph, line 2. Change “3 places to the right first, Since” to “3 places to the right first. Since”
- 5) Problem Set 5, page 47, the graphs of choice D, E in Problems #12 were messed up.
- 6) Problem Set 5, problem 12. On CD, the lesson was cut short
- 7) Lesson 6, page 51, paragraph 3, line 2. Change “ $A(r)$ ” to “ $A(t)$ .”
- 8) Lesson 6, page 52, line 7. Change “ $(f \circ g)(x)$ ” to “ $(f \circ x)(t)$  .”
- 9) Problem Set 6, problem 5. On CD, the answers for  $x$ -values are incorrect. They should have been -1, -0.5, -0.25, 0, 1, 2.
- 10) Lesson 11, page 107, Figure 11.2. Point  $(-1, -1)$  must be labeled as  $(-1, 1)$ .

- 11) Lesson 13, page 131, line 10 from the bottom of the page. Change “ $f(x)$ ” to “ $g(x)$ .”
- 12) Lesson 19, page 184, line 6 from the bottom of the page. Change “lines  $x=2$  and  $x=2$ .” to “lines  $x=2$  and  $x=-2$ .”
- 13) Lesson 22, page 216, in the label of the calculator step figure. Change “To enter  $p(x)=$ ” to “To enter  $r(x)=$ ”
- 14) Lesson 24, page 236, line 19. Change “ $P$  in 2010  $=12,000,000(1+0.03)^4$ ” to “ $P$  in 2011  $=12,000,000(1+0.03)^4$ .”
- 15) Lesson 28, page 269, line 3. Change “ $\frac{10^7}{10^3}$ ” to “ $\frac{10^7}{10^4}$ ”.
- 16) Lesson 35, page 331, paragraph 3, line 4. Change “ $0 < t \leq 40$ ” to “ $0 \leq t \leq 40$ .”
- 17) Lesson 35, page 331, below paragraph 3. Change “ $d = 9t, \quad 0 < t \leq 40$  Mr. Van Cleef” to “ $d = 9t, \quad 0 \leq t \leq 40$  Mr. Van Cleef.”
- 18) Lesson 35, page 331, last line. Change “the pair (630,85)” to “the pair (85,630).”
- 19) Lesson 35, page 332, line 7. Change “ $85 < t \leq 125$ ” to “ $85 < t \leq 115$ .”
- 20) Lesson 35, page 332, after line 9. Change “ $g(t) = \begin{cases} 9t, & 0 < t \leq 40 \\ 6t+120, & 40 < t \leq 85 \\ 15t-645, & 85 < t \leq 115 \end{cases}$ ” to “ $g(t) = \begin{cases} 9t, & 0 \leq t \leq 40 \\ 6t+120, & 40 < t \leq 85 \\ 15t-645, & 85 < t \leq 115 \end{cases}$ .”
- 21) Lesson 38, page 361, paragraph 3, line 1. Change “Before putting 5 feet, 6 inches in for  $AC$ ” to “Before putting 5 feet, 6 inches in for  $BC$ ”
- 22) Lesson 38, page 361, equation below paragraph 3. Change “ $\sin 13^\circ = \frac{\text{opposite}}{\text{hypotenuse}} = \frac{5.5}{BC}$ ” to “ $\sin 13^\circ = \frac{\text{opposite}}{\text{hypotenuse}} = \frac{5.5}{AC}$ ”.
- 23) Lesson 44, page 415, paragraph 3, line 2. Change “equals  $\frac{\pi}{3} \cdot \frac{180}{\pi}$  or 60 degrees.” to “equals  $\frac{\pi}{6} \cdot \frac{180}{\pi}$  or 30 degrees.”
- 24) Lesson 45, page 422, line 8. Change “or +840 and +40” to “or +840 and -840.”

- 25) Lesson 45, page 424, paragraph 3, line 2. Change “reflect the graph across the  $y$ -axis” to “reflect the graph across the  $x$ -axis”
- 26) Lesson 46, page 436, line 4 and 14. Change “ $y = 5 \cos 2\left(x - \frac{\pi}{2}\right)$ ” to “ $y = 5 \cos 2\left(x + \frac{\pi}{2}\right)$ .”
- 27) Lesson 46, page 436, paragraph 2, line 6. Change “To enter  $2\pi$ , we press  $\boxed{2}$ .  $\boxed{2\text{nd}}$ ,  $\boxed{\pi}$ .” to “To enter  $2\pi$ , we press  $\boxed{2}$ .  $\boxed{2\text{nd}}$ ,  $\boxed{\wedge}$ .”
- 28) Lesson 46, page 436, paragraph 2, line 16. Change “we press  $\boxed{2}$ ,  $\boxed{[}$ ,  $\boxed{\text{X,T,}\theta,\text{n}}$ ,  $\boxed{-}$ ,  $\boxed{2\text{nd}}$ ,  $\boxed{\wedge}$ ,  $\boxed{\div}$ ,  $\boxed{2}$ ,  $\boxed{]}$ .” to “we press  $\boxed{2}$ ,  $\boxed{[}$ ,  $\boxed{\text{X,T,}\theta,\text{n}}$ ,  $\boxed{+}$ ,  $\boxed{2\text{nd}}$ ,  $\boxed{\wedge}$ ,  $\boxed{\div}$ ,  $\boxed{2}$ ,  $\boxed{]}$ .”
- 29) Lesson 45, page 436, Change the screen shot at the bottom of the page into the graph of  $y = 5 \cos 2\left(x + \frac{\pi}{2}\right)$ .
- 30) Lesson 47, page 445, line 6. Change “The tangent of angle  $\alpha$  is opposite divided adjacent, as usual.” to “The tangent of angle  $\alpha$  is opposite divided by adjacent, as usual.”
- 31) Lesson 47, page 445, the paragraph above Figure 47.2 was rewritten.
- 32) Lesson 47, page 447, last line. Change “the secant ratio is the inverse of the cosine ratio:” to “the secant ratio is the reciprocal of the cosine ratio:”
- 33) Lesson 47, page 450, paragraph 3, line 3. Change “ $y = a \sin(bx)$  is reflected across the origin.” to “ $y = a \sin(bx)$  is reflected across the  $x$ -axis.”
- 34) Lesson 48, page 457, line 9. Change “we can create  $r(q(x))$  by substituting  $\log x$  in for  $x$  in  $\cos x$ .” to “we can create  $q(r(x))$  by substituting in  $\cos x$  for  $x$  in  $\log x$ .”
- 35) Lesson 48, page 457, line 10. Change “ $r(q(x)) = \cos(\log x)$ ” to “ $q(r(x)) = \log(\cos x)$ .”
- 36) Lesson 48, page 457, line 11. Change “ $r\left(q\left(\frac{\pi}{3}\right)\right)$ ” to “ $q\left(r\left(\frac{\pi}{3}\right)\right)$ .”
- 37) Lesson 50, page 485, line 1. Change “ $Y_{\min} = -2$  and  $Y_{\min} = 2$ ” to “ $Y_{\min} = -2$  and  $Y_{\max} = 2$ .”
- 38) Lesson 52, page 502, line 10. Change “equal the secant of  $\theta$ .” to “equal the square of the secant of  $\theta$ .”
- 39) Lesson 56, page 535, line 8. Change “The proof of  $\sin 2\alpha = 2 \sin \alpha \cos \beta$ ” to “ $\sin 2\alpha = 2 \sin \alpha \cos \alpha$ .”

- 40) Lesson 58, page 552, line 2. Change “ $2\sin^2 x - \sin x = 1$ ” to “ $2\sin^2 x + \sin x = 1$ .”
- 41) Lesson 62, page 588, line 14. Change “function for y-coordinate” to “function for x-coordinate.”
- 42) Lesson 63, page 599, line 11. Change “then” to “than.”
- 43) Lesson 67, page 644, line 1. Change “ $y = \frac{N_z}{D} = \frac{-220}{-660} = \frac{1}{3}$ ” to “ $z = \frac{N_z}{D} = \frac{-220}{-660} = \frac{1}{3}$ .”
- 44) Lesson 70, page 665, line 3. Change “An example is  $3x - 5 \leq 4$ ” to “An example is  $-3x - 5 \leq 4$ .”
- 45) Lesson 75, page 721, line 23. Change “ $4x^2 - y^2 + 32x + 2y - 59 = 0$ ” to “ $4x^2 - y^2 + 32x + 2y + 59 = 0$ .”
- 46) Problem Set 86, practice C and problem 18, on CD. The simplification steps were not correct. The answer to practice C should be  $-6$  and the answer to problem 18 should be  $-6$ .
- 47) Lesson 87, page 824, line 11 from the bottom. Change “If we the object” to “If the object.”
- 48) Problem Set 87, page 823, practice f. Change from “Given that the speed (in meters per second) of a bungee jumper can be represented by the function  $v(t) = 9.8t$ , how many meters will the jumper fall in the first two seconds?” to “Given that the speed (in feet per second) of a bungee jumper can be represented by the function  $v(t) = 32t$ , how many feet will the jumper fall in the first two seconds?”
- 49) Lesson 88, page 830, line 8. Change “It’s impossible to make get” to “It’s possible to get.”
- 50) Lesson 91, page 855, paragraph 3, line 2. Change “If there’s had been a missing” to “If there had been a missing.”
- 51) Lesson 91, page 855, paragraph 3, line 3 and 4. Change “we would have need” to “we would have needed.”
- 52) Problem Set 91, page 862, problem “(e)22.” should be changed to “(f) 22.”
- 53) Lesson 93, page 872, paragraph 2 from the bottom of the page, line 3. Change “gives an answer of  $-53.3^\circ$ ” to “gives an answer of  $-53.1^\circ$ .”
- 54) Answer of Problem Set 93, Problem 14, page 44. Change from  
“ $a_1 = 60.6$ ,  $\angle A_1 = 46.4^\circ$ ,  $\angle B_1 = 91.6^\circ$ ”

$$\begin{aligned}
 & a_2 = 22.6, \angle A_2 = 15.7^\circ, \angle B_2 = 122.3^\circ \\
 \text{to} & \quad "a_1 = 75.9, \angle A_1 = 65.1^\circ, \angle B_1 = 72.9^\circ \\
 & a_2 = 43.0, \angle A_2 = 30.9^\circ, \angle B_2 = 107.1^\circ"
 \end{aligned}$$

**55)** Problem set 94, page 883, practice C. Change the choices to:

- A.  $21.3(\cos 3.8^\circ + i \sin 3.8^\circ)$ ;  $21.3(\cos 123.8^\circ + i \sin 123.8^\circ)$ ;  $21.3(\cos 243.8^\circ + i \sin 243.8^\circ)$
- B.  $4(\cos 3.8^\circ + i \sin 3.8^\circ)$ ;  $4(\cos 123.8^\circ + i \sin 123.8^\circ)$ ;  $4(\cos 243.8^\circ + i \sin 243.8^\circ)$
- C.  $262,144(\cos 57^\circ + i \sin 57^\circ)$
- D.  $4(\cos 18^\circ + i \sin 18^\circ)$ ;  $4(\cos 138^\circ + i \sin 138^\circ)$ ;  $4(\cos 258^\circ + i \sin 258^\circ)$
- E.  $21.3(\cos 18^\circ + i \sin 18^\circ)$ ;  $21.3(\cos 138^\circ + i \sin 138^\circ)$ ;  $21.3(\cos 258^\circ + i \sin 258^\circ)$

**56)** Problem Set 94, page 886, problem 17. Change the choices to:

- A.  $9(\cos 10^\circ + i \sin 10^\circ)$ ;  $9(\cos 130^\circ + i \sin 130^\circ)$ ;  $9(\cos 250^\circ + i \sin 250^\circ)$
- B.  $3(\cos 3.1^\circ + i \sin 3.1^\circ)$ ;  $3(\cos 123.1^\circ + i \sin 123.1^\circ)$ ;  $3(\cos 243.1^\circ + i \sin 243.1^\circ)$
- C.  $19,683(\cos 33^\circ + i \sin 33^\circ)$
- D.  $9(\cos 3.1^\circ + i \sin 3.1^\circ)$ ;  $3(\cos 123.1^\circ + i \sin 123.1^\circ)$ ;  $3(\cos 243.1^\circ + i \sin 243.1^\circ)$
- E.  $3(\cos 10^\circ + i \sin 10^\circ)$ ;  $3(\cos 130^\circ + i \sin 130^\circ)$ ;  $3(\cos 250^\circ + i \sin 250^\circ)$

**57)** Chapter Test 14, Problem 18, page 98. Change instruction from "Select the answer for each question below." to "Select the third roots of the complex number below".