

PreCalculus Corrections including PreCalculus Honors

Note: Although we correct spelling, grammar, and cosmetic errors, they will not be listed here.

Student Text

8A#12: hypotenuse is $3\sqrt{2}$

9A #2: The right side of the equals sign should read $\sin^2 \square + \cos^2 \square$

12B #2: should ask for $\cos 2\square$

21A #20: should read: $\log_6 X + \log_6 7 = 3$

21B #18: should read: $\log_A X^{\frac{2}{3}}$

22B #7: should read: $e^x + 2e^{-x} = 3$

23B #9: should be labeled \cos ; #10 should be labeled \sin

26A #8: the 1 should be positive

30B#5: remove exponent to make it $\frac{2X\square 6}{X\square 3}$

Test Booklet

Test 5#15 answer for D should be $5\sqrt{2}$

Test 20 #6: question should read: What is $r(r(p))$?

answer D should read: $p^4 + 2p^2 + 2$

Test 20 #1: question should read "What is $f(a^3)$?"

Test 20 #15: coordinates should read (5, -5)

Test 22 #8: C should read -7.4

Test 22 #9: formula should read $f(t) = 5000e^{-3t}$

Test 25 #5: should read \tan and \cot

Test 29 #9: A should read $-2 < X < 1$

Test 30 #15: denominator of question should be $C^{-2}B$

Teacher Manual

Lessons 16-3, example 4: $(-5, -323^\circ)$ should be $(-5, 323^\circ)$

In Lessons 23 and 24, references to Lesson 21 should refer to Lesson 23

Lesson 26-4: In Solution 2, the value used for a_1 should be $\sqrt{2}$, not 2

Lesson 26-4: Solution 4 uses a wrong value to solve, final answer should be -210

Lesson 30-3: Table should read as follows:

| X | f(X) |
|-------------|------|
| 0 | 1 |
| $\square 1$ | 0 |
| 1 | 2 |
| 3 | 4 |

Lesson 30-3: below table in paragraph, $(X= 1)$ should read $(X + 1)$

Lesson 30-4: Example 4 equation should be equal to 1

Lesson 30-4: Example 6 should have limit approaching (-2) , not 2.

Solutions

Lesson 2B #1: first term of second line should be 20.25, not 20.5

Lesson 7D #9: to be consistent, label 360° as 4th quadrant

Lesson 8C #19: should be 255.96°

Lesson 9B #2: second term of last line should be $2 \tan \square \sec \square$

Lesson 9B #3: denominator of first term of answer should begin with $\cos^2 \square 2$

Lesson 10A #5: second line should read: $\frac{2}{\sqrt{3}} \square \frac{\sqrt{3}}{2} = \frac{1 \square 1}{2 \square \sqrt{3}}$

Lesson 10C#8: denominator of third line should end with + 1

Lesson 11A #3: final answer should be $2 - \sqrt{3}$

Lesson 11B #4: final answer should be $2 + \sqrt{3}$

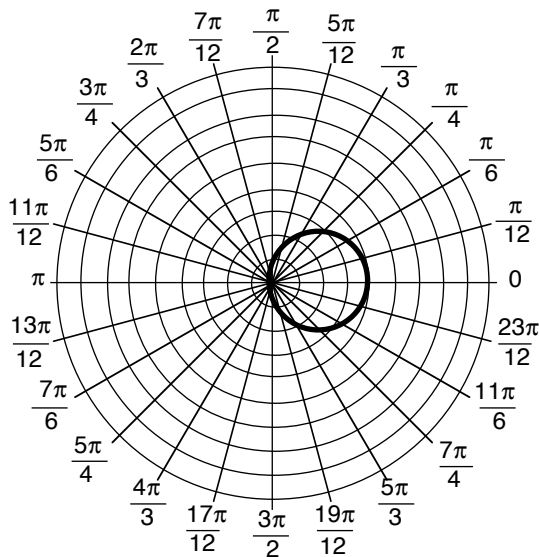
Lesson 11C#6: plus sign in final answer should be a negative sign

Lesson 11D#3: final answer should be $2 + \sqrt{3}$

Lesson 14B#1: in next-to-last line, "sin B =" should be "sin A ="

Lesson 15B#13: $\cot 3\square/2 = 0$

Lesson 17B #8, graph should be as follows:



Lesson 18B #6: middle step should be $r = 2 \sin \square$

Lesson 18C #3: second form of answer for vector 2 should be (177.7 m, 303.5°)

Lesson 19C #6: solution should read: $Y \leq 1$

Lesson 20C #1: $(X^2 + 1)$ should be $(X^2 \square 1)$; answer is $X^2 + X + 1$

#2: answer is $\square X^2 + X + 3$

#3: answer is $X^3 + 2X^2 \square X \square 2$

#9: answer is $\frac{X^2 + 3}{3X}$

Lesson 21A #1: solution should read: $\log_5 25 = 2$

$$5^2 = 25$$

Lesson 21A #17: answer should read: $\log_X A^3 - \log_X (B-1)$

Lesson 21B #17: answer should read: $\log_A \frac{(X-1)^2}{X^3}$

Lesson 21B #18: first line of solution should read: $\log_A X^{\frac{2}{3}}$

Lesson 21 A - D, Problems 22-24 on each page: add "log" before the term on the left side of the equals sign in each case.

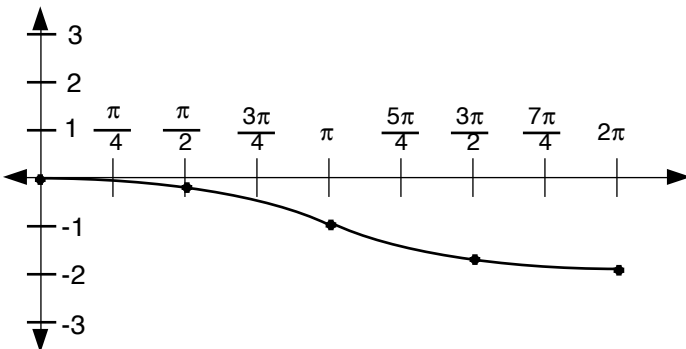
Lesson 22 B #7: solution should read: $e^X + 2e^X = 3$
 $e^{2X} + 2e^0 = 3e^X$
 $e^{2X} - 3e^X + 2 = 0$
 $Y^2 - 3Y + 2 = 0$
 $(Y - 1)(Y - 2) = 0$
 $(e^X - 1)(e^X - 2) = 0$

Lesson 22B # 9: final answer should be -.11

Lesson 22C # 8: final answer should read: $X = \frac{\ln 5}{2} \approx .8$

Lesson 23A #12: solution should read $y = \frac{1}{2} \cos x \approx \frac{1}{2}$

Lesson 24B-2 #6: chart is missing last step. Graph should be as shown below.



Lesson 24B2 #7: -1.5 in last row of table should be -.5

Lesson 26B #15a: denominator should be 2

Lesson 30B #5: remove exponent from the question in student book and solution

Appendix B-2 #16: H = 8, short side = 4, long side = 6.928

Test Solutions

- Test 1 #8: answer should be A
 Test 2 #9: answer should be C
 Test 6 #3: solution is correct but answer should be B and not D
 Test 6 #4: answer should be B; solution should be:

$$926^2 + 833.8^2 =$$

$$857,476 + 695,222.44 = 1,552,698$$

$$\sqrt{1,552,698} = 1246.107$$

Test 10 #13 correct answer is B

Test 20 #6: should read: $p^4 + 2p^2 + 2$ (note that question has been changed)

Test 20 #13: answer is D

Test 20 #12: should read: $\cos \theta = \sin(90^\circ - \theta)$
 $\cos 53^\circ = \sin(90^\circ - 53^\circ) = \sin 37^\circ = 3/5$

Test 21 # 6: answer is numerically correct, but should say "B"

Test 22 #9: on the first line, to the left of the equals sign, it should read: $5000 \cdot 3^{(5)}$

Test 22 #8: solution should read as follows:

C: $\ln(4e^X) = -6$
 $\ln 4 + \ln e^X = -6$
 $\ln e^X = -6 - \ln 4$
 $X = -6 - \ln 4$
 $X = -6 - 1.386 = -7.4$ (rounded)

Test 22 Solutions to #11 - #15 may be missing. They should read as follows:

11) B: $\frac{a}{\sin 34^\circ} = \frac{28}{\sin 72^\circ}$
 $a \sin 72^\circ = 28 \sin 34^\circ$
 $a (.9511) = 28 (.5591)$
 $.9511a = 15.6574$; $a = 16.5$ (rounded)

12) B

13) D

14) C: $a^2 = b^2 + c^2 - 2bc \cos A$
 $64 = 16 + 121 - 88 \cos A$
 $73 = -88 \cos A$
 $\frac{-73}{-88} = \cos A$
 $.8295 = \cos A$; $33.9^\circ = A$

15) A: $r = \frac{6}{3 \cos \theta + \sin \theta}$
 $r(3 \cos \theta + \sin \theta) = 6$
 $3r \cos \theta + r \sin \theta = 6$
 $3X + Y = 6$

Test 28 #7: answer should be D, $X = 26$

Test 29 #9: end of answer should read, "between -2 and +1"

Unit Test Solutions

Unit Test I #4: should be 2 and 3

$$\text{Unit Test I \#14: should read } \sin 70^\circ = \frac{A}{10}$$

$$.9396 = \frac{A}{10}$$

$$9.4 = A$$

$$\text{Unit Test I \#15: should read } \tan 40^\circ = \frac{B}{3}$$

$$.84 = \frac{B}{3}$$

$$2.52 = B$$

$$\text{Unit Test I \#18: should read } \tan 26^\circ = \frac{B}{100}$$

$$.4877 = \frac{B}{100}$$

$$48.77 = B$$

$$\text{Unit Test II \#1: answer is } \frac{1 + \sqrt{2}}{2}$$

$$\text{Unit Test II \#5: should end with: } \sqrt{\frac{1 + \sqrt{2}}{2}} = \sqrt{\frac{2 + \sqrt{2}}{4}} = \frac{\sqrt{2 + \sqrt{2}}}{2}$$

$$\text{Unit Test II \#6: should read: } \sec \frac{3\pi}{8} = \sec \frac{3\pi}{8} \cdot \frac{3\pi \cdot 180^\circ}{\cancel{\pi}} = \sec \frac{540^\circ}{8} = \sec 67.5^\circ =$$

$$\csc(90^\circ - 67.5^\circ) = \csc 22.5^\circ = \frac{1}{\sin 22.5^\circ} = \frac{1}{\frac{\sqrt{2 + \sqrt{2}}}{4} \text{ (from \#5)}} =$$

$$\sqrt{\frac{4}{2 + \sqrt{2}}} \cdot \frac{2 + \sqrt{2}}{2 + \sqrt{2}} = \sqrt{\frac{8 + 4\sqrt{2}}{4 \cdot 2}} = \sqrt{\frac{8 + 4\sqrt{2}}{2}} = \sqrt{4 + 2\sqrt{2}}$$

The question has been changed in a recent printing to one that does not involve radian measure. In that case, your solution will start with $\sec 67.5^\circ$ on the first line above.

$$\text{Unit Test III \#13: } 3X = -.367, \quad X = -.122$$

$$\text{Unit Test III \#14: } (Y + 5)(Y - 2) = (\ln X + 5)(\ln X - 2)$$

$$\text{Unit Test III \#15: final answer is } \ln X + e^X + X^2 \cdot 5$$

$$\text{Unit Test IV \#2: } 0 + 2 = 2$$

$$\text{Final Exam \#16: domain} = [\pi, \infty) \text{ or all real numbers } \geq -3$$

$$\text{range} = (\pi, \infty) \text{ or all real numbers}$$

Honors

Solutions Lesson 2, #2, 5, 7: statements about symmetry have X and Y reversed.

Replacing X with -X is test for symmetry around Y axis, and replacing Y with -Y is test for symmetry around X axis.

Solutions Lesson 18 #3: (90.6, 25.74°) rounds to (91, 26°)