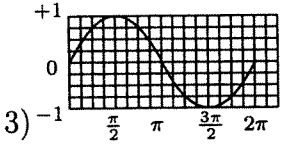


Algebra Diagnostic Answers		
Answers to algebra diagnostic test	If you missed these questions, review the indicated sections of the MSC <i>Algebra</i> Capsule.	If you need more than a brief review, work through the indicated sections of Hughes-Hallett, <i>Algebra</i> .
1) $\frac{-a-b}{a^2-b^2} = \frac{-1}{a-b} = \frac{1}{b-a}$ 2) $\frac{x^2+3x+2}{2x^2}$ 3) cannot be simplified	II. Fractions	Chapters 4, 10
4) $\frac{8}{a^2}$ 5) $0.0016a^8$ 6) $-4y$	III. Exponents	Chapter 7 (using 10^m , but the rules apply to a^m)
7) $-4y^9$ 8) cannot be simplified	IV. Radicals	Chapter 6
9) $a^3 + 3a^2b + 3ab^2 + b^3$ 10) $x + 2\sqrt{xy} - 3y$	V. Simplifying Algebraic Expressions	Chapters 3, 8, 9, 11
11) $x = 0, 3, -2$ 12) $x = \frac{-7 \pm \sqrt{37}}{2}$	VI. Solving Equations	Chapters 12, 14, 15

If you missed many questions, try reading Chapters 1, 4, and 8 of Isaac Asimov, *Realm of Algebra* (Fawcett Publications, 1961), which is a brief, conversational paperback that many students have found helpful (especially Chapters 1 and 8), or go directly to Deborah Hughes-Hallett, *The Math Workshop: Algebra* (W. W. Norton, 1980), which is also very conversational, but detailed, with excellent exercises, or George F. Simmons, *Precalculus Mathematics in a Nutshell* (William Kaufmann, 1981), a delightfully succinct paperback covering essentials.

All these books are available for examination or browsing in the Mathematics Support Center and for sale at the Campus Bookstore and other bookstores in Collegetown.

Trigonometry Diagnostic Answers		
Answers to trigonometry diagnostic test	If you missed these questions, review the indicated sections of the MSC <i>Trigonometry</i> Capsule.	If you have easy access to Keedy and Bittinger, <i>Algebra & Trigonometry</i> , the relevant sections are:
1) (a) $\pi/6$ radians (b) 270° (c) $127\pi/180$ radians	I. Angle Measurement	Chapter 8.1
2) (a) $\sqrt{3}/2 = 0.866\dots$ (b) 1 (c) undefined	II. Trig Ratios III. Calculation of Easy Trig Ratios	Chapters 7.1, 7.2, 7.3, 7.4, 8.3
3) 	IV. Graphs of Trig Functions	Chapters 7.3, 7.4, 7.6
4) $6/\sqrt{85}$ 5) $\overline{AB} = (400/\cos 17^\circ)'$ $\overline{AC} = (400 \tan 17^\circ)'$ $\angle A = 73^\circ$	V. Obtaining & Using Trig Ratios for Other Angles	Chapters 7.3, 8.5
6) (a) $\cos \theta$ (b) $\cos \theta$ (c) $2 \sin \theta \cos \theta$	VI. Basic Identities	Chapters 7.5, 8.4
7) $\sin A \cos B - \cos A \sin B$	VII. Laws: Sines & Cosines VIII. Addition Formulae	Chapters 7.7, 9.1, 9.2, 9.3
8) $-3 \sin 3x + \sec^2 x$	IX. Differentiating Sin, Cos	See your calculus text!
9) $\pi/6$ radians	X. Inverse Trig Functions	Chapters 9.4, 9.5

If you need more than the brief review of these capsules, we recommend Deborah Hughes-Hallett, *The Math Workshop: Elementary Functions* (W. W. Norton, 1980), Chapters 13–19. This is a detailed but very clear and conversational book, with excellent exercises.

These books are available for examination or browsing in the Mathematics Support Center and for sale at the Campus Bookstore and other bookstores in Collegetown.