

Name _____

BAKER UNIVERSITY
INTERMEDIATE ALGEBRA (MA-140)
PRACTICE TEST 1

Be sure to **READ** carefully, **SHOW** all work, and **CIRCLE** answers.

GOOD LUCK!

Chapter P

1. Determine which of the following is a list of all members of the set of integers between -4.32 and 2.01 .

- A. $-3, -2, -1, 0, 1$
- B. $-4, -3, -2, -1, 0$
- C. $-5, -4, -3, -2, -1, 0, 1$
- D. $-4, -3, -2, -1, 0, 1$
- E. $-4, -3, -2, -1, 0, 1, 2$

2. Determine which number lies furthest from 1.

- A. 5
- B. -6
- C. 8
- C. -4
- C. 9

3. Evaluate the expression: $18 \div (6 \cdot 2)$.

- A. 6
- B. $\frac{2}{3}$
- C. $\frac{3}{2}$
- D. 24
- E. $\frac{1}{24}$

4. Use the Distributive Property to complete: $-2(3 - x) = \underline{\hspace{2cm}}$

- A. $-6 - 2x$
- B. $-3 + x$
- C. $-6 + 2x$
- D. $-6 - x$
- E. None of these.

5. Simplify: $(2x^3)^3$

- A. $6x^6$
- B. $8x^5$
- C. $6x^5$
- D. $8x^6$
- E. $2x^6$

6. Simplify: $4x^2 - 2x - x^2 - 5x + 3$

- A. $-x^2$
- B. $4x^2 - 8x + 8$
- C. $4x^2 + 8x + 8$
- D. $3x^2 - 7x + 3$
- E. None of these

7. Simplify: $3[4 - 2(x + 1)]$

- A. $3x + 3$
- B. $6 - 6x$
- C. $12 - 6x$
- D. $-3x - 3$
- E. None of these

8. Evaluate $\frac{5 + \sqrt{(-5)^2 - 4(1)(4)}}{2}$.

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

9. Which of the following verbal expressions correctly represents the algebraic expression $\frac{4x + 3}{8}$?

- A. Four eighth times the sum of x and three
- B. Four times x , divided by eight, the result added to three
- C. Four times the sum of one eighth of x and three
- D. The sum of three and the product of four and x , all divided by eight
- E. Four times the sum of x and three eighth

10. Which of the following statements is *true*.

- A. If k is an integer, then $2k^2$ is an *odd* integer.
- B. If k is an integer, then $2k^2 + 1$ is an *even* integer.
- C. If k is an *odd* integer, then $k^2 + 1$ is an *even* integer.

Chapter I

1. Solve $3(x + 1) - 2(x - 2) = 7$

2. Solve $\frac{x + 6}{3} - \frac{x + 1}{4} = 2$

3. The sum of three consecutive integers is 30. Write a linear equation for this problem and solve the equation to find the integers.

4. 44 is what percent of 99?

5. Which has the smaller unit price: a 15-ounce box of cereal for \$2.75 or a 20-ounce box of the same cereal for \$3.50?

6. Find the ratio of 45 minutes to 9 hours.

7. A pair of shoes that lists for \$64.00 is advertised at 20% off. Find the selling price.

8. Solve: $|2x + 1| = 5$.

9. Solve the inequality: $-5 < 2x + 1 \leq 7$.

10. Solve the inequality: $|x - 4| \leq 5$.

EXTRA CREDIT: Solve the equation: $|2x - 3| = |x + 3|$.