

MAT.0650 - ELEMENTARY ALGEBRA

TEST 1 REVIEW (Sep, 17)

- Materials: Chapter 0, 1. (We may not be able to finish chapter 1 before the scheduled test date. In that situation, some problems will be removed as we get closer to the test date.)
 - Lecture notes are always part of the review materials, please do not start the problems until you are already familiar with the materials in lecture notes.
 - Test Date: Monday, 9/23.
 - Test Time:
 - The test starts at the **beginning** of class.
 - The test is 40 minutes long. No extended or extra time will be given for lateness.
 - No Calculator is allowed.
 - This review sheet may NOT contain actual problems from the test.
 - The actual test does NOT contain as many problems as this worksheet does.
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1. Evaluate.

- (a) $-3(9) - 4(7)(-1)$
- (b) $2(-5) - \frac{18}{-3} + 1$
- (c) $-(-2)^4$
- (d) $3(10) - 4^2$
- (e) $2^3 + 4(-5 + 1)$
- (f) $\frac{4^2 - 9}{-7} - 6(3)$
- (g) $2 + 3(1 - 6) + 12 \div 4 \times 3$

2. Evaluate each expression when $x = 2$, $y = -3$, and $z = -1$.

- (a) $3x - y$
- (b) $\frac{7 - y^2}{x}$
- (c) $2x^2 - 3xy + y^2$
- (d) $y^3 + 2xy - 5x^2$

3. Multiply.

- (a) $-5xy^2(3x^3)$
- (b) $(7df^2)(-2d^2ef)(e^2f)$

4. Division.

- (a) $\frac{-15a^3b^2}{-5a^3b}$
- (b) $\frac{-32q^3rs}{16qs}$

$$(c) \frac{-12mn^3}{12mn^3}$$

$$(d) \frac{-24r^2s^3t^2}{-30r^4s^3}$$

$$(e) \frac{40x^5y^7z^2}{-12y^{11}z}$$

$$(f) \frac{45x^6y^3z^2}{-9xy^3z^3}$$

5. Rewrite and simplify.

(a) Subtract $6x + 4$ from $4x$.

(b) Subtract $2a^2 - 4a$ from $3a + a^2$.

(c) Subtract $6x^2 - 3x + 1$ from $-2x^2 + 5x - 1$.