Algebra I
Blizzard Bag #1

Directions: Complete the following review sheet from Chapters 1 to 3. Be sure to show your work. You will have 2 weeks to complete from the "Snow Day." No Late work will be accepted.

Enjoy!

3 Standardized Test Practice

(Chapters 1-3)

SCORE _____

Part 1: Multiple Choice

Instructions: Fill in the appropriate circle for the best answer.

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1. The student council is selling candy bars to earn money towards their budget for the school dance. Identify the independent and dependent variables. (Lesson 1-6)

   A I: student council;
   D: money earned

   B I: budget;
   D: school dance

   C I: candy bars sold;
   D: money earned

   D I: candy bars sold;
   D: school dance

   1. Ⓐ Ⓑ Ⓒ Ⓓ

2. Dion owns a delivery service. He charges his customers $15.00 for each delivery. His expenses include $7000 for the motorcycle he drives and $0.42 for gasoline per trip. Which equation could Dion use to calculate his profit p for d deliveries? (Lesson 1-7)

   F $p = 15 - 0.42d$

   G $p = 7000 + 15d$

   H $p = 14.58d - 7000$

   J $p = 0.42d + 7000$

   2. Ⓕ Ⓖ Ⓗ Ⓙ

3. Evaluate $60 \div 5 \cdot 6 - 3^2$. (Lesson 1-2)

   A -7 **B** -4 **C** 63 **D** 4761

   3. Ⓐ Ⓑ Ⓒ Ⓓ

4. Jim's new car has 150 miles on the odometer. He takes a trip and drives an average of m miles each day for three weeks. Which expression represents the mileage on Jim's car after his trip? (Lesson 2-4)

   F $150m + 3$ **G** $150 + 3m$ **H** $150m + 21$ **J** $150 + 21m$

   4. Ⓕ Ⓖ Ⓗ Ⓙ

5. Translate the sentence into an equation. (Lesson 2-1)
   Five times the sum of m and t is as much as four times r.

   A $5m + t = 4$ **B** $5m + t = r$ **C** $5(m + t) = 4r$ **D** $m + t = 5(4r)$

   5. Ⓐ Ⓑ Ⓒ Ⓓ

6. Solve $8(x - 5) = 12(4x - 1) + 12$. (Lesson 2-4)

   F $-\frac{7}{10}$ **G** $-\frac{5}{7}$ **H** -2 **J** -1

   6. Ⓕ Ⓖ Ⓗ Ⓙ

7. Paul and Charlene are 420 miles apart. They start toward each other with Paul driving 16 miles per hour faster than Charlene. They meet in 5 hours. Find Charlene's speed. (Lesson 2-9)

   A 34 mph   **B** 50 mph   **C** 40.4 mph   **D** 68 mph

   7. Ⓐ Ⓑ Ⓒ Ⓓ

8. Determine which equation is a linear equation. (Lesson 3-1)

   F $x^2 + y = 4$ **G** $x + y = 4$ **H** $xy = 4$ **J** $\frac{1}{x} + y = 4$

   8. Ⓕ Ⓖ Ⓗ Ⓙ

9. If $f(x) = 7 - 2x$, find $f(3) + 6$. (Lesson 1-7)

   A 11   **B** 7   **C** 14   **D** -11

   9. Ⓐ Ⓑ Ⓒ Ⓓ

10. Chapa is beginning an exercise program that calls for 30 push-ups each day for the first week. Each week thereafter, she has to increase her push-ups by 2. Which week of her program will be the first one in which she will do 50 push-ups a day? (Lesson 3-5)

    F 9th week   **G** 10th week   **H** 11th week   **J** 12th week

    10. Ⓕ Ⓖ Ⓗ Ⓙ

3 Standardized Test Practice (continued)

11. Which property of equality is illustrated below? (Lesson 1-3)
   If 7 + 9 = 11 + 5 and 11 + 5 = 16, then 7 + 9 = 16.

   A Transitive   **C** Substitution

   B Reflexive   **D** Symmetric

   11. Ⓐ Ⓑ Ⓒ Ⓓ

12. Which expression represents the missing second step of simplifying the algebraic expression? (Lesson 1-4)

   Step 1 $4(x - 3y) + 6 + 5(x + 1)$

   Step 3 $9x - 12y + 11$

   F $4x - 3y + 6 + 5x + 1$ **H** $4x - 12y + 6 + 5x + 5$

   G $12(x - y) + 6 + x + 5$ **J** $x - 3y + 15 + x + 1$

   12. Ⓕ Ⓖ Ⓗ Ⓙ

13. Solve $48 = -8r$. (Lesson 2-2)
   A $r = 8$ **B** $r = 6$ **C** $r = -6$ **D** $r = -40$

   13. Ⓐ Ⓑ Ⓒ Ⓓ

14. Solve $4 - (-h) = 12$. (Lesson 2-2)
   F $h = 16$ **G** $h = 8$ **H** $h = -8$ **J** $h = -16$

   14. Ⓕ Ⓖ Ⓗ Ⓙ

For Questions 15 and 16, use the arithmetic sequence 2, 5, 8, 11, ...

15. Which is an equation for the *n*th term of the sequence? (Lesson 3-5)

   A $a_n = 2n + 1$ **C** $a_n = n + 3$

   B $a_n = 4n - 2$ **D** $a_n = 3n - 1$

   15. Ⓐ Ⓑ Ⓒ Ⓓ

16. What is the 20th term in the sequence? (Lesson 3-5)
   F 59   **G** 60   **H** 78   **J** 80

   16. Ⓕ Ⓖ Ⓗ Ⓙ

Part 2: Gridded Response

Instructions: Enter your answer by writing each digit of the answer in a column box and then shading in the appropriate circle that corresponds to that entry.

17. The ratio of *a* to *b* is $\frac{4}{7}$. If *a* is 16, find the value of *b*. (Lesson 2-6)

18. The equation $C = \frac{F - 32}{1.8}$ relates the temperature in degrees Fahrenheit *F* to degrees Celsius *C*. If the temperature is 25°C, what is the temperature in degrees Fahrenheit? (Lesson 3-1)

3 Standardized Test Practice (continued)

Part 3: Short Response

Instructions: Write your answer in the space provided.

19. Find the solution of $y + \frac{2}{3} = \frac{22}{15}$ if the replacement set is $\frac{2}{5}, \frac{3}{5}, \frac{4}{5}, 1, 1\frac{1}{5}$.
(Lesson 1-5)

19. _____

20. Simplify $5m + 8p + 3m + p$. (Lesson 1-3)

20. _____

21. Determine the slope of the line passing through $(1, 4)$ and $(3, -1)$.
(Lesson 3-3)

21. _____

22. Translate the following equation into a verbal sentence. $\frac{x}{4} - y = -2\left(\frac{x}{y}\right)$
(Lesson 2-1)

22. _____

23. Find the discounted price.   clock: $15.00
discount: 15% (Lesson 2-7)
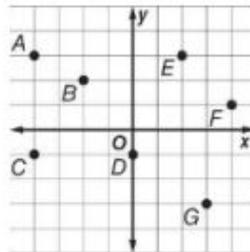
23. _____

24. Solve $-7x + 23 = 37$. (Lesson 2-3)

24. _____

25. Use cross products to determine whether the ratios $\frac{4}{7}$ and $\frac{11}{15}$ form a proportion. Write *yes* or *no*. (Lesson 2-6)

25. _____

For Questions 26 and 27, use the graph.

26. Express the relation as a set of ordered pairs. Then determine the domain and range. (Lesson 1-6)

26. _____

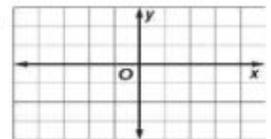**27.** Determine whether the relation is a function. (Lesson 1-7)

27. _____

28. _____

28. Find the *x*-intercept of the graph of $4x = 5 + y$. (Lesson 3-1)

29. Graph $2x - 3y = 6$. (Lesson 3-1)

29.

30. The table below shows the average amount of gas Therese's truck uses depending on how many miles she drives.

Gallons of Gasoline	1	2	3	4	5
Miles Driven	18	36	54	72	90

30a. _____

a. Does the table of values represent a function? Explain. (Lesson 3-6)

b. Is this a proportional relationship? Explain. (Lesson 3-6)

30b. _____