

Algebra I
Blizzard Bag # 3

Directions: Complete the following review sheet from Chapters 1 to 6. Be sure to show your work. You will have 2 weeks to complete from the “Snow Day.” No Late work will be accepted.

Enjoy!

8 Standardized Test Practice

(Chapters 1–8)

SCORE _____

Part 1: Multiple Choice**Instructions:** Fill in the appropriate circle for the best answer.

1. Simplify $9a^2 + 7a + 4a^2 + 2a$. (Lesson 1-3)
A $22a^3$ **B** $13a^2 + 9a$ **C** $36a^2 + 14a$ **D** $16a^2 + 6a$ 1. A B C D
2. Which is an equation for the line that passes through $(-2, 7)$ and $(3, -8)$? (Lesson 4-2)
F $y = -3x + 1$ **H** $y = -\frac{1}{3}x + 8$
G $y = -\frac{1}{3}x + \frac{19}{3}$ **J** $y = -3x + 13$ 2. F G H J
3. Solve $24 + x < 18$. (Lesson 5-1)
A $\{x \mid x < 42\}$ **C** $\left\{x \mid x < \frac{3}{4}\right\}$
B $\{x \mid x > 6\}$ **D** $\{x \mid x < -6\}$ 3. A B C D
4. Half the perimeter of a garden is 18 feet. The garden is 8 feet longer than it is wide. How wide is the garden? (Lesson 6-3)
F 5 ft **G** 40 ft² **H** 36 ft **J** 8 ft 4. F G H J
5. Find $(3.2 \times 10^5) \div (8.0 \times 10^{-4})$. (Lesson 7-4)
A 4×10^0 **C** 4×10^1
B 4×10^8 **D** 2.56×10^{10} 5. A B C D
6. Find $(3g^2 - g + 2k) + (8k - 5g^2 + 7g)$. (Lesson 8-1)
F $11g^2 - 6g + 9k$ **H** $8g^2 - 8g - 6k$
G $-6g^2 + 9g + 11k$ **J** $-2g^2 + 6g + 10k$ 6. F G H J
7. Find $(2x - 1)(3x + 2)$. (Lesson 8-3)
A $5x^2 + 4x - 2$ **C** $6x^2 - 3x + 2$
B $6x^2 + x - 2$ **D** $5x^2 + x + 1$ 7. A B C D
8. Solve $8x^2 - 6x = 0$. (Lesson 8-5)
F $\left\{0, \frac{3}{4}\right\}$ **G** $\left\{0, \frac{4}{3}\right\}$ **H** $\{6, 8\}$ **J** $\left\{0, \frac{3}{4}, 2\right\}$ 8. F G H J
9. Solve $p^2 - 10p = -21$. (Lesson 8-6)
A $\{-3, 10\}$ **B** $\{4, -7\}$ **C** $\{5\}$ **D** $\{3, 7\}$ 9. A B C D
10. Each football game begins with a kickoff. The formula $h = -16t^2 + 64t$, where h is the height in feet of the football at t seconds, can be used to model a kickoff that is in the air for 4 seconds. At what times will the football be 48 feet above the ground? (Lesson 8-7)
F 1 s **H** 1 s, 3 s 10. F G H J
G 2 s **J** 1.5 s, 2.5 s

8 Standardized Test Practice *(continued)*

11. Solve $2(v + 3) - 26 = 7(1 - v)$. (Lesson 1-2)
 A 10 B 3 C 9 D $\frac{10}{3}$ 11. (A) (B) (C) (D)
12. Find the total price. (Lesson 2-7)
 calculator: \$90 tax: 8%
 F \$90.08 G \$98.00 H \$97.20 J \$90.80 12. (F) (G) (H) (J)
13. Solve $x - 2y = 6$ if the domain is $\{-2, 0, 2\}$. (Lesson 3-1)
 A $\{(-2, -4), (0, -3), (2, -2)\}$ C $\{(-2, 5), (0, 3), (2, 5)\}$
 B $\{(-2, -2), (3, 0), (2, 4)\}$ D $\{(2, -2), (3, 0), (4, 2)\}$ 13. (A) (B) (C) (D)
14. A line passes through $(-1, 3)$ and $(1, -3)$. Which equation does *not* represent the line?
 (Lesson 4-2)
 F $(y - 3) = -3(x + 1)$ H $(y + 3) = -3(x - 1)$
 G $3x - y = 0$ J $y = -3x$ 14. (F) (G) (H) (J)
15. Solve $\frac{n}{7} < -6$. (Lesson 5-2)
 A $n > 42$ B $n < -42$ C $n < 42$ D $n > -42$ 15. (A) (B) (C) (D)
16. Solve $8 \leq 2h + 6 \leq 22$. (Lesson 5-4)
 F $\{h \mid 1 \leq h \leq 8\}$ H $\{h \mid 4 \leq h \leq 11\}$
 G $\{h \mid 7 \leq h \leq 14\}$ J $\{h \mid 0 \leq h \leq 14\}$ 16. (F) (G) (H) (J)
17. Solve $|2u + 7| = 13$. (Lesson 5-3)
 A $\{-10, 3\}$ B $\{-10, -3\}$ C $\{3, 10\}$ D $\{-3, 10\}$ 17. (A) (B) (C) (D)
18. Factor $2x^2 + 15x + 18$. (Lesson 8-8)
 F $(2x - 3)(x + 6)$ H $(2x - 3)(x - 6)$
 G $(2x + 2)(x + 9)$ J $(2x + 3)(x + 6)$ 18. (F) (G) (H) (J)

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.

19. Solve $3(x - 2) + 4x = 3(2x - 1)$. (Lesson 8-2)

	⊗	⊗	⊗	⊗
⊖	⊖	⊖	⊖	⊖
⓪	⓪	⓪	⓪	⓪
①	①	①	①	①
②	②	②	②	②
③	③	③	③	③
④	④	④	④	④
⑤	⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨

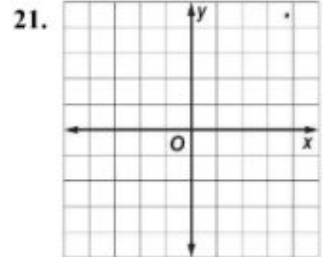
20. Solve $9x^2 + 16 = 24x$. (Lesson 8-9)

	⊗	⊗	⊗	⊗
⊖	⊖	⊖	⊖	⊖
⓪	⓪	⓪	⓪	⓪
①	①	①	①	①
②	②	②	②	②
③	③	③	③	③
④	④	④	④	④
⑤	⑤	⑤	⑤	⑤
⑥	⑥	⑥	⑥	⑥
⑦	⑦	⑦	⑦	⑦
⑧	⑧	⑧	⑧	⑧
⑨	⑨	⑨	⑨	⑨

8 Standardized Test Practice *(continued)*

Part 3: Short Response
Instructions: Write your answers in the space provided.

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



22. Determine whether the system has *no* solution, *one* solution, or *infinitely many* solutions. (Lesson 6-1)

$$3x - 4y = -12$$

$$x + 4 = \frac{4}{3}y$$

22. _____

23. Use elimination to solve the system of equations. (Lesson 6-3)

$$6x - 3y = 11$$

$$6x + 3y = 17$$

23. _____

24. Simplify $(-2x^2y^3)^4$. (Lesson 7-1)

24. _____

25. Simplify $5(2y^2 + 3y - 2) + 8y(3y^2 + 4y - 2)$. (Lesson 8-2)

25. _____

26. Simplify $(2x + 1)(x^2 - 3x - 4)$. (Lesson 8-3)

26. _____

27. Factor $12a^2b^2 - 16a^2b^3$. (Lesson 8-5)

27. _____

28. Solve $5x^2 - 6x + 1 = 0$. (Lesson 8-7)

28. _____

29. Factor $4x^2 - 49y^2$. (Lesson 8-8)

29. _____

30. The sum of two numbers is 18. The difference between three times the lesser number and the greater number is 10. (Lesson 2-1)

a. Define variables and formulate a system of equations from this situation.

30a. _____

b. What is the greater number?

30b. _____