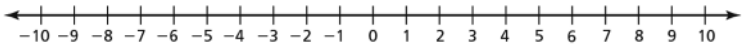
Name_____ Date_____

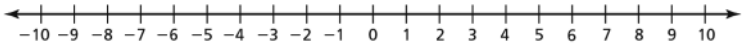
Lesson 8.5 Review & Refresh

Graph the inequality on a number line.

1. $a < 7$



2. $b \geq -3$



Tell whether the given value is a solution to the equation.

3. $27 + x = 14; x = 13$ **4.** $3y = 2y + 10; y = 10$ **5.** $4z = -48; z = -12$

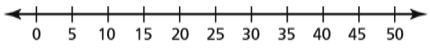
Tell whether the given value is a solution to the inequality.

6. $a + 4 > 8; a = 3$ **7.** $12 \leq b - 3; b = 15$ **8.** $\frac{c}{2} > 10; c = 20$

9. In a game, you need 500 points to win. You have scored 345. Write and solve an equation to find the number of points to win the game.

10. There are 98 players for a 7-on-7 football league. Write and solve an equation for the number of teams in the league.

11. The most hours a person can work a week at a job is 40 hours. Write and graph an inequality that represents the hours the person can work.



Write the word sentence as an equation.

12. 4 plus a number z is at least –5.

13. A number y minus 8 is no more than 6.

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Lesson 8.5 Review & Refresh (continued)

Write the word sentence as an equation. Then solve the equation.

14. The difference of x and 36 is 14.

15. 30 equals the sum of 12 and y.

Solve the equation.

16. $\frac{a}{3} = 4$

17. $-23 + c = 40$

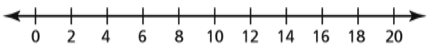
18. $7f = 49$

19. $-18 = \frac{d}{5}$

20. $32 = 45 + m$

21. $-48 = 3j$

22. You need at least 10 units of additional training at work. Write and graph an inequality that represents the number of units needed.



Lesson 8.5 Self-Assessment

Use the scale to rate your understanding of the learning target and the success criteria.

1 I don't understand yet. 2 I can do it with help. 3 I can do it on my own. 4 I can teach someone else.

	Rating	Date
8.5 Writing and Graphing Inequalities		
Learning Target: Write inequalities and represent solutions of inequalities on number lines.	1 2 3 4	
I can write word sentences as inequalities.	1 2 3 4	
I can determine whether a value is a solution of an inequality.	1 2 3 4	
I can graph the solutions of inequalities.	1 2 3 4	

Name _____ Date _____

Chapter 8 Chapter Self-Assessment

Use the scale to rate your understanding of the learning target and the success criteria.

	Rating	Date
Chapter 8 Equations and Inequalities		
Learning Target: Understand equations.	1 2 3 4	
I can identify key words and phrases that indicate equality.	1 2 3 4	
I can write word sentences as equations or inequalities.	1 2 3 4	
I can solve equations using properties of equality.	1 2 3 4	
I can use equations or inequalities to model real-life problems.	1 2 3 4	
8.1 Writing Equations in One Variable		
Learning Target: Write equations in one variable and write equations that represent real-life problems.	1 2 3 4	
I can identify key words and phrases that indicate equality.	1 2 3 4	
I can write word sentences as equations.	1 2 3 4	
I can create equations to represent real-life problems.	1 2 3 4	
8.2 Finding Unknown Values in Equations		
Learning Target: Find unknown values in equations.	1 2 3 4	
I can determine whether a value is a solution of an equation.	1 2 3 4	
I can use mental math to solve equations.	1 2 3 4	
I can use models to solve equations.	1 2 3 4	

Name _____ Date _____

Chapter 8 Chapter Self-Assessment (continued)

	Rating	Date
8.3 Solving Equations Using Addition or Subtraction		
Learning Target: Write and solve equations using addition or subtraction.	1 2 3 4	
I can apply the Addition and Subtraction Properties of Equality to generate equivalent equations.	1 2 3 4	
I can solve equations using addition or subtraction.	1 2 3 4	
I can create equations involving addition or subtraction to solve real-life problems.	1 2 3 4	
8.4 Solving Equations Using Multiplication or Division		
Learning Target: Write and solve equations using multiplication or division.	1 2 3 4	
I can apply the Multiplication and Division Properties of Equality to generate equivalent equations.	1 2 3 4	
I can solve equations using multiplication or division.	1 2 3 4	
I can create equations involving multiplication or division to solve real-life problems.	1 2 3 4	
8.5 Writing and Graphing Inequalities		
Learning Target: Write inequalities and represent solutions of inequalities on number lines.	1 2 3 4	
I can write word sentences as inequalities.	1 2 3 4	
I can determine whether a value is a solution of an inequality.	1 2 3 4	
I can graph the solutions of inequalities.	1 2 3 4	

Name _____ Date _____

Chapter 8 B.E.S.T. Test Prep

1. You run a race that is 3.1 kilometers. This distance is

Ⓐ 31
Ⓑ 310
Ⓒ 3100

meters or

Ⓐ 31,000
Ⓑ 310,000
Ⓒ 3,100,000

centimeters.

2. This question has **two** parts.

You play basketball and score 8 fewer than three times as many points as your friend.

Part A

What is the expression that represents the p points your friend scored?

Ⓐ $8 - 3p$

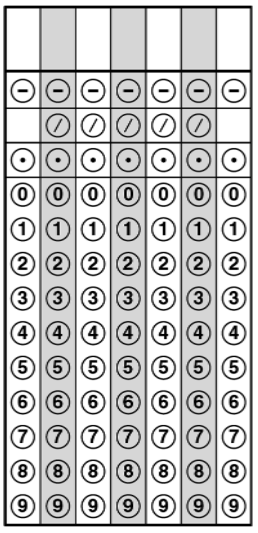
Ⓑ $3p - 8$

Ⓒ $p - 8 - 3$

Ⓓ $8 - p - 3$

Part B

How many points did you score if your friend scored 9 points?



3. A charity was collecting books for a book drive. The goal is 750 books, and they have collected 518. Write and solve an equation to find the number of books still needed.

Ⓐ $b - 750 = 518$; 1238 books

Ⓑ $b + 750 = 518$; 1238 books

Ⓒ $b - 518 = 750$; 232 books

Ⓓ $b + 518 = 750$; 232 books

Name _____ Date _____

Chapter 8 B.E.S.T. Test Prep (continued)

4. Simplify the expression $4(y - x) + 6(x + y)$.

Ⓐ $2x + 10y$

Ⓑ $5x + 5y$

Ⓒ $2x + 5y$

Ⓓ $5x + 10y$

5. Which expression has the greatest value?

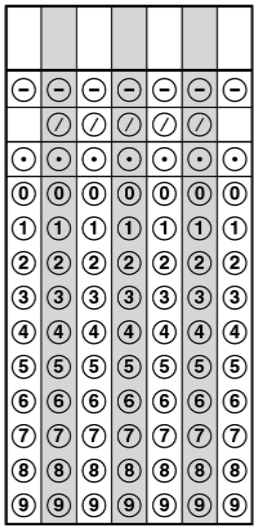
Ⓐ $1\frac{7}{9} \times 3\frac{5}{7}$

Ⓑ $\left(1\frac{2}{3}\right)^3$

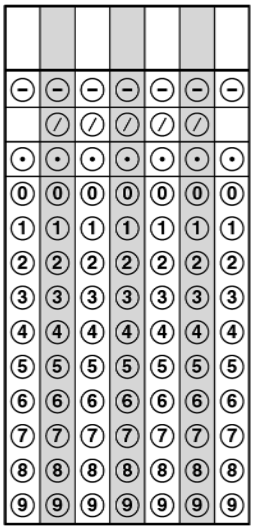
Ⓒ $9\frac{7}{10} \div 1\frac{1}{5}$

Ⓓ $12\frac{1}{4} \div 1\frac{1}{2}$

6. What percent of 60 is 27?



7. 150% of what number is 21?



8. Which of the following show an equation and its solution?

Ⓐ $-3 = \frac{d}{-8}; d = -24$

Ⓑ $14 = 25 - k; k = -11$

Ⓒ $j + 1 = \frac{j}{3}; j = -3$

Ⓓ $\frac{3}{4}\ell = -9; \ell = -12$

Ⓔ $-15 = n + 8; n = -7$

Ⓕ $4m + 2m = 72; m = 12$

9. Which of the following are solutions of the inequality $12 > 6z$?

Ⓐ $z = -2$

Ⓑ $z = -1$

Ⓒ $z = 0$

Ⓓ $z = 1$

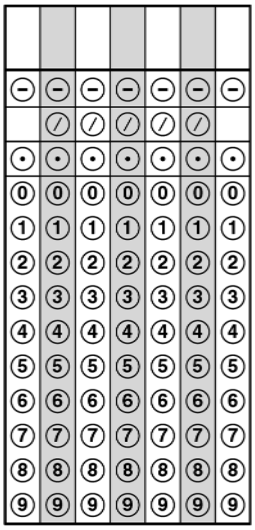
Ⓔ $z = 2$

Ⓕ $z = 3$

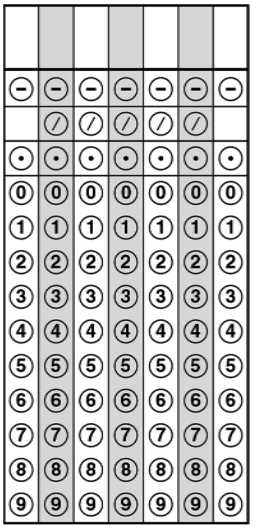
Name _____ Date _____

Chapter 8 B.E.S.T. Test Prep (continued)

10. What is the solution to $-12 = \ell + 23$?



11. What is the solution to $12\ell = -96$?



12. Each box contains 18 oranges, and there is a total of 432 oranges. Write and solve an equation to find the number of boxes of oranges.

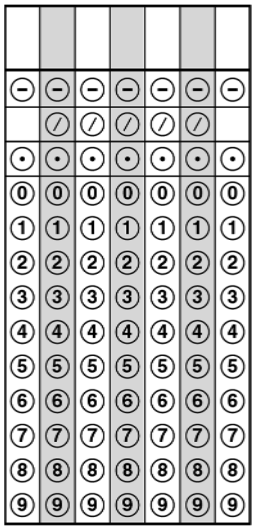
Ⓐ $18 - s = 432$; 414 boxes

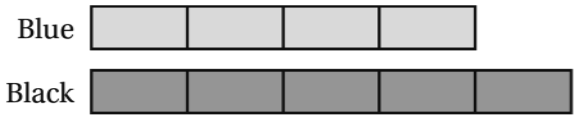
Ⓑ $18 + s = 432$; 414 boxes

Ⓒ $18s = 432$; 24 boxes

Ⓓ $\frac{s}{18} = 432$; 24 boxes

13. The tape diagram shows the ratio of blue pens to black pens in a desk drawer. If there are 12 blue pens, then how many black pens are there?





Name _____ Date _____

Chapter 8 B.E.S.T. Test Prep (continued)

14. Which ordered pair is in Quadrant II?

Ⓐ $(-3, -5)$

Ⓑ $(-3, 5)$

Ⓒ $(0, 5)$

Ⓓ $(0, -5)$

15. What is the GCF and LCM of 30, 40, and 60?

Ⓐ GCF: 120; LCM: 10

Ⓑ GCF: 10; LCM: 120

Ⓒ GCF: 60; LCM: 20

Ⓓ GCF: 20; LCM: 60

16. What is the equation and the solution to the sentence –20 equals the difference of 28 and a number x?

Ⓐ $-20 = x - 28; x = 48$

Ⓑ $-20 = 28 - x; x = 48$

Ⓒ $-20 = x - 28; x = 8$

Ⓓ $-20 = 28 - x; x = 8$

17. Is the comparison true or false?

	True	False
$-5\frac{1}{3} \stackrel{?}{>} -5\frac{1}{2}$	Ⓐ	Ⓑ
$-4.1 \stackrel{?}{>} 4.01$	Ⓒ	Ⓓ
$\lvert -9 \rvert \stackrel{?}{>} 9$	Ⓔ	Ⓕ

18. What is the value of $x^2 - yz$ when $x = -4$, $y = 5$, and $z = -6$?