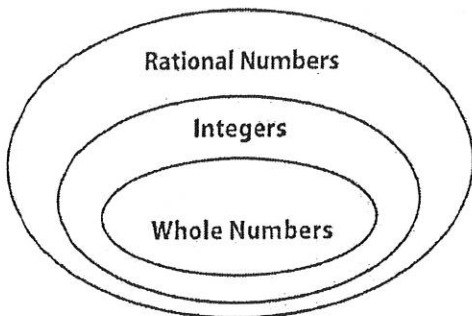


Grade 7  
Math  
Summer Packet  
2016

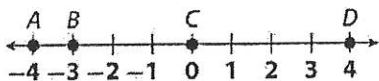
Incoming Gr. 7 Summer Packet; Staple Work to packet or lose points  
 \* Please use Answer key provided.

1. To which set or sets below does the number  $-\frac{7}{8}$  belong?



- A whole numbers only  
 B rational numbers only  
 C integers and rational numbers only  
 D whole numbers, integers, and rational numbers

2. Which of the following points is graphed at the opposite of  $-4$  on the number line below?



- A A  
 B B  
 C C  
 D D
3. Jamal plotted points on a number line at the four values below.

$0.27, -\frac{1}{4}, 1.1, \frac{5}{3}$

Which of these values is farthest from zero?

- A  $0.27$   
 B  $-\frac{1}{4}$   
 C  $1.1$   
 D  $\frac{5}{3}$
4. Harriet recorded outdoor temperatures as  $-7^{\circ}\text{C}$ ,  $-2^{\circ}\text{C}$ , and  $1^{\circ}\text{C}$ . Which of the following correctly compares the three temperatures?
- A  $-7 < 1 < -2$   
 B  $1 < -2 < -7$   
 C  $-2 < 1 < -7$   
 D  $-7 < -2 < 1$

5. Which of the following is equivalent to the expression below?

$$\frac{2}{9} \times \frac{3}{4}$$

- A  $\frac{2}{9} + \frac{3}{4}$   
 B  $\frac{3}{4} + \frac{2}{9}$   
 C  $\frac{2}{9} \div \frac{4}{3}$   
 D  $\frac{9}{2} \div \frac{4}{3}$
6. What is the greatest common factor of 12 and 48?
- A 12  
 B 24  
 C 36  
 D 48
7. What is the least common multiple of 5 and 12?
- A 24  
 B 30  
 C 36  
 D 60
8. Abby is making frozen popsicles using  $5\frac{3}{4}$  cups of fruit juice and  $1\frac{3}{4}$  cups of water. Abby mixes the fruit juice and water together. She will then pour the mixture into popsicle molds. Each mold will hold  $\frac{1}{2}$  cup. How many popsicles can Abby make?
- A 7  
 B 15  
 C 20  
 D 24
9. Zoe is making a quilt using 15 red squares and 30 green squares. Which combination shows the same ratio of red squares to green squares?
- A 3 red squares to 6 green squares  
 B 6 red squares to 3 green squares  
 C 5 red squares to 12 green squares  
 D 12 red squares to 5 green squares


## Placement Test

20. What is the independent variable?  
 A Bike A                      C time  
 B Bike B                      D distance

Use the table for 21–22.

Machine Rental Charges

Hours, $x$	3	5	7
Charge, $y$ (\$)	51	85	119

21. Which equation expresses  $y$  in terms of  $x$ ?  
 A  $y = 17x$                       C  $x = 51y$   
 B  $y = 25x$                       D  $x = 85y$
22. What is the charge for renting a machine for 3.5 hours?  
 A \$51.50                      C \$65.50  
 B \$59.50                      D \$86.50
23. What are all the factors of 15?  
 A 1, 3, 5  
 B 1, 3, 5, 10  
 C 1, 2, 3, 5, 10  
 D 1, 3, 5, 15
24. What is the value of the expression below?  
 $675 - (15 - 12)^3 \div 3$   
 A 216                      C 666  
 B 224                      D 678
25. On a farm, there are  $c$  cows and 15 sheep. There are 4 more sheep than cows. Which equation represents the situation?  
 A  $c = 15 + 4$   
 B  $c = 15 - 4$   
 C  $c = 4 - 15$   
 D  $c = 4 \times 15$
26. Write an algebraic expression for the phrase below.  
 8 more than three times a number  $n$   
 A  $3 + 8n$                       C  $3n - 8$   
 B  $8n - 3$                       D  $3n + 8$
27. Which of the following expressions is equivalent to the expression below?  
 $4(2x + 11 - x)$   
 A  $8x + 11$                       C  $2x - 11$   
 B  $x + 22$                       D  $4x + 44$
28. A triangle has an area of 369.25 square inches. The height of the triangle is 42.2 inches. What is the length of the base of the triangle?  
 A 17.5 in.                      C 42.7 in.  
 B 35 in.                      D 56 in.
29. A parallelogram has a base of 9 centimeters and a height of 21 centimeters. What is the area of the parallelogram?  
 A  $30 \text{ cm}^2$                       C  $189 \text{ cm}^2$   
 B  $94.5 \text{ cm}^2$                       D  $567 \text{ cm}^2$
30. A rectangular prism has a volume of 285.6 cubic feet. The prism is 12 feet long and 3.4 feet wide. What is the height of the prism?  
 A 7 ft                      C 19 ft  
 B 15 ft                      D 22 ft
31. Which inequality is shown on the number line below?  
  
 A  $p < -3$                       C  $p > -3$   
 B  $p \leq -3$                       D  $p \geq -3$
32. Mariah bought a shirt for \$28.50 and a belt. The total cost was \$45.50. Which of the following equations can be used to find the cost of the belt?  
 A  $28.50 + b = 45.50$   
 B  $45.50 + b = 28.50$   
 C  $b = 28.50 - 45.50$   
 D  $b = 28.50 \times 45.50$

Name: \_\_\_\_\_

**Multiple-Choice Answer Sheet**

Incoming Grade 7

Test Title \_\_\_\_\_

- 1. (A) (B) (C) (D)
- 2. (A) (B) (C) (D)
- 3. (A) (B) (C) (D)
- 4. (A) (B) (C) (D)
- 5. (A) (B) (C) (D)
- 6. (A) (B) (C) (D)
- 7. (A) (B) (C) (D)
- 8. (A) (B) (C) (D)
- 9. (A) (B) (C) (D)
- 10. (A) (B) (C) (D)
  
- 11. (A) (B) (C) (D)
- 12. (A) (B) (C) (D)
- 13. (A) (B) (C) (D)
- 14. (A) (B) (C) (D)
- 15. (A) (B) (C) (D)
- 16. (A) (B) (C) (D)
- 17. (A) (B) (C) (D)
- 18. (A) (B) (C) (D)
- 19. (A) (B) (C) (D)
- 20. (A) (B) (C) (D)
  
- 21. (A) (B) (C) (D)
- 22. (A) (B) (C) (D)
- 23. (A) (B) (C) (D)
- 24. (A) (B) (C) (D)
- 25. (A) (B) (C) (D)

- 26. (A) (B) (C) (D)
- 27. (A) (B) (C) (D)
- 28. (A) (B) (C) (D)
- 29. (A) (B) (C) (D)
- 30. (A) (B) (C) (D)
- 31. (A) (B) (C) (D)
- 32. (A) (B) (C) (D)
- 33. (A) (B) (C) (D)
- 34. (A) (B) (C) (D)
- 35. (A) (B) (C) (D)
  
- 36. (A) (B) (C) (D)
- 37. (A) (B) (C) (D)
- 38. (A) (B) (C) (D)
- 39. (A) (B) (C) (D)
- 40. (A) (B) (C) (D)
- ~~41. (A) (B) (C) (D)~~
- ~~42. (A) (B) (C) (D)~~
- ~~43. (A) (B) (C) (D)~~
- ~~44. (A) (B) (C) (D)~~
- ~~45. (A) (B) (C) (D)~~
  
- ~~46. (A) (B) (C) (D)~~
- ~~47. (A) (B) (C) (D)~~
- ~~48. (A) (B) (C) (D)~~
- ~~49. (A) (B) (C) (D)~~
- ~~50. (A) (B) (C) (D)~~