

MGSE7.NS.1

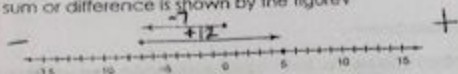
I can...

- Add and Subtract Rational Numbers
- Represent Addition and Subtraction on a Number Line

1. Which statement explains how you can use a number line to determine the number that is 4 more than 29?

- 1-B
- Go to 29 on the number line and then move 4 units to the left.
 - Go to 29 on the number line and then move 4 units to the right.
 - Go to 4 on the number line and then move 9 units to the right.
 - Go to 9 on the number line and then move 4 units to the right.

2. What sum or difference is shown by the figure?



- 2-B
- $5 + (-12) = 7$
 - $-7 + 12 = 5$
 - $5 - (-12) = -7$
 - $-7 + (-12) = 5$

MGSE7.NS.1a

I can...

- Describe situations in which opposites make 0

3. Which statement about the sum of two additive inverses is true?

- 3-A
- The sum is zero.
 - The sum is 1.
 - The sum must be a positive number.
 - The sum must be a negative number.

MGSE7.NS.1d

I can...

- Apply properties to add and subtract rational numbers.

4. Determine the missing addend. $___ + 13 = -8$

- 4-C
- 21
 - 13
 - 21
 - 8

MGSE7.NS.2

I can...

- Multiply rational numbers.
- Divide rational numbers.

5. Which expression has the same value as $\frac{160}{-5}$?

- 5-D
- $\frac{-96}{-3}$
 - 20×1.6
 - $2.5 \times (-16)$
 - $-\frac{1}{2} \times 64$

$$\begin{array}{r} 32 \\ 5 \overline{)160} \\ \underline{150} \\ 10 \\ \underline{10} \\ 0 \end{array} = -32$$

MGSE7.NS.2a

I can ...

- Interpret products by describing Real World Contexts.
- Understand how to use the distributive property.
- Multiply signed numbers.

6. Determine the value of -14.1×-7.33 .

- a. -1033.53
 b. -103.353
c. 103.353
 d. 1033.53

6-c

MGSE7.NS.2b

I can ...

- Interpret quotients by describing Real World Contexts.
- Divide signed numbers.

7. How many $1\frac{3}{4}$ -foot pieces of ribbon can be cut from a piece of ribbon that is 36 feet long?

- a. 18 pieces
 b. 19 pieces
c. 20 pieces
 d. 21 pieces

7-c

$$36 \div 1\frac{3}{4} \rightarrow 36 \div \frac{7}{4} \rightarrow 36 \times \frac{4}{7} = \frac{144}{7} = 20 \text{ pieces}$$

$$\begin{array}{r} 20 \overline{)144} \\ \underline{140} \\ 4 \end{array}$$

8. Which expression is equivalent to $-\frac{3}{5} \div -4\frac{5}{6}$?

- a. $-\frac{3}{5} \times -\frac{29}{6}$
b. $-\frac{3}{5} \times -\frac{6}{29}$
 c. $-\frac{3}{5} \times -\frac{29}{6}$
 d. $-\frac{5}{3} \times -\frac{6}{29}$

8-B

$$-\frac{3}{5} \div -\frac{29}{6} \rightarrow -\frac{3}{5} \times -\frac{6}{29} = \frac{18}{145}$$

MGSE7.NS.2c

I can ...

- Apply properties to multiply and divide rational numbers.

9. Which property is used in the equation $(7\frac{1}{8} - 6\frac{3}{4}) + 9\frac{1}{4} = 7\frac{1}{8} + (-6\frac{3}{4} + 9\frac{1}{4})$?

- a. Distributive Property of Multiplication over Addition
 b. Commutative Property of Addition
c. Associative Property of Addition
 d. Associative Property of Multiplication

9-c

MGSE7.NS.2d

I can ...

- Convert rational numbers to a decimal using division.

10. What is the decimal equivalent of $\frac{39}{50}$?

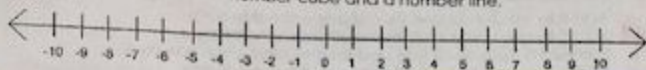
- a. 0.708
b. 0.78
 c. 0.78
 d. 1.28205

10-B

$$\begin{array}{r} 0.78 \\ 50 \overline{)39.00} \\ \underline{-350} \\ 400 \\ \underline{-400} \\ 0 \end{array}$$



11. A number game is played with a number cube and a number line.



When it is your turn, you roll the number cube twice. The first roll tells you how many units to move to the left from the starting point. The second roll tells you how many units to move to the right from where you stopped after your first roll.

If the starting point is 24, what is your ending point if you roll 5 on the first roll and 3 on the second roll?

11-C

- a. 212
b. 26
c. 22
d. 4

$$24 - 5 + 3 = 22$$

12. Which classification describes 0.34?

12-A

- a. terminating decimal**
b. repeating decimal
c. non-repeating decimal
d. repeating and terminating decimal

$$\frac{34}{100}$$

MGSE7.EE.1

I can ...

- add and subtract linear expressions.
- Factor linear expressions with rational coefficients.
- expand linear expressions with rational coefficients.

$$100 \overline{) 34.00} \\ \underline{30.00} \\ 4.00 \\ \underline{4.00} \\ 0$$

13. Which is the common factor of the expression $6y^2 + 27y$?

13-C

- a. 3
b. y
c. 3y
d. $3y + y$

$$3y(2y + 9)$$

MGSE7.EE.2

I can ...

- rewrite an expression in a different form.

14. Which expression is equivalent to $3x - 4$?

14-A

- a. $3(x - 1) - 1$**
b. $3(x + 1) + 1$
c. $2(x - 1) - 1$
d. $2(x + 1) + 1$

$$3x - 4 = 3(x - 1) - 1 \\ 3x - 3 - 1 \\ 3x - 4$$

MGSE7.EE.3

I can ...

- solve multi-step word problems with rational numbers.
- Convert between rational numbers forms.
- assess the reasonableness of the answer.

15. Summre ordered five DVDs, all at the same price, from an online retailer. There was a shipping charge of \$14.50 for the complete order but no sales tax. If Summre's total charge for her order was \$79.45, what was the price of each DVD?

- a. \$18.79
b. \$15.89
c. \$12.99
d. \$16.24

$$5D + 14.50 = 79.45 \\ \underline{-14.50} \quad \underline{-14.50}$$

$$\frac{5D}{5} = \frac{64.95}{5}$$

$$D = 12.99$$

15-C

22. Find the difference $-16 - (-22)$.

- A -38
B -6
C 6
D 38

$-16 + 22 = 6$

23. Find the difference $5 - (-13)$.

- F -18
G -8
H 8
J 18

$5 + 13 = 18$

24. Find the product $5 \cdot (-10)$.

- A -50
B -5
C 2
D 50

25. Find the quotient $-200 \div (-40)$.

- F -240
G -5
H 5
J 8,000

26. Simplify $-11(5)$.

- A -55
B -25
C -5
D 25

27. Solve $n - 9 = -5$.

- F $n = -14$
G $n = -4$
H $n = 4$
J $n = 14$

28. Solve $\frac{g}{4} = -16$.

- A $g = -64$
B $g = -4$
C $g = 4$
D $g = 64$

29. Marilyn withdrew \$43 from her savings account. The current balance is \$87. How much was the balance before her withdrawal?

$x - 43 = 87$
 $x = 130$

- F -\$44
G \$44
H \$87
J \$130

30. Solve $-8 + x = 12$.

- A 20
B 4
C -20
D -4

$-8 + x = 12$
 $\frac{8}{8} \quad \frac{8}{8}$
 $x = 20$

Final Exam Fall (12) Applying Rational Numbers

Choose the best answer.

31. Add $52.14 + (-37.08)$.

- A -89.22
B -15.08
C 15.06
D 89.22

- F -92.87
G -38.73
H 38.73
J 92.87

32. Subtract $65.8 - (-27.07)$.

33. Caroline has \$25 to spend on the school field trip. After paying \$13.00 for the cost of the field trip and \$6.25

A

for lunch, how much will she have left? $25 - 13 - 6.25 = 5.75$

- A \$5.75 C \$12.50
 B \$12.00 D \$18.75

34. Multiply 4.04×7.1 .

- F 28 H 28.684
 G 28.3204 J 31.24

35. Multiply -6.8×3.29 .

- A -223.72 C -22.372
 B -22.44 D 22.372

36. Bruno's hourly salary is \$6.75. Last week he worked a 20-hour week. How much did he earn? $(20)(6.75)$

- F \$13.50 H \$135
 G \$120 J \$140

37. Divide $48.1 \div 6.5$.

- A -7.4 C 7.4
 B 7.385 D 8.183

38. Divide $82.36 \div (-5.8)$.

- F -14.2 H 14.2
 G 13.667 J 14.821

39. Divide $74.88 \div 12$.

- A 6.24 C 12.34
 B 6.34 D 62.88

40. Django sells 14 CDs of his school band. He makes a total of \$193.06. Which equation can be used to find how much each CD was sold for?

- F $\frac{c}{14} = 193.06$
 G $c - 14 = 193.06$
 H $14c = 193.06$
 J $c = 193.06 \times 14$

41. Solve $\frac{x}{3.2} = 5.7$.

- A 1.78 C 8.9
 B 18.24 D 2.5

42. Add $\frac{4}{5} + \frac{2}{3}$. $\frac{12}{15} + \frac{10}{15} = \frac{22}{15} = 1\frac{7}{15}$

- F $\frac{3}{4}$ H $1\frac{7}{8}$
 G $1\frac{7}{15}$ J $1\frac{7}{5}$

43. Subtract $\frac{9}{14} - \frac{5}{8}$. $\frac{72}{112} - \frac{70}{112} = \frac{2}{112}$

A $\frac{1}{0}$

B $\frac{1}{56}$

C $\frac{2}{3} = \frac{1}{56}$

D $1\frac{15}{56}$

~~B~~ $\frac{5}{21}$

~~D~~ $\frac{1}{2}$

45. Multiply $4\frac{1}{3} \cdot \frac{3}{8}$. $13\frac{3}{7} \cdot \frac{13}{8} = 1\frac{5}{8}$

A $\frac{1}{8}$

C $4\frac{1}{8}$

B $1\frac{5}{8}$

D $4\frac{3}{11}$

44. Multiply $\frac{4}{7} \cdot \frac{5}{12}$

~~A~~ $\frac{20}{84}$

~~C~~ $\frac{6}{21}$

Final Exam Fall (12) Math dpt. Multi-Step Equations and Inequalities

Choose the best answer.

46. What is the value of x ?

$5x - 7 = 28$

A 5

C 21

B 7

D 35

$5x - 7 = 28$

$5x = 35$

$x = 7$

47. What is the value of y ?

$-8y + 15 = 71$

~~A~~ -56

~~C~~ -8

~~B~~ -10.75

D -7

$-8y + 15 = 71$

$-8y = 56$

$y = -7$

48. What is the value of n ?

$12n - 15 = 45$

A 2.5

C 5

B 3

D 18

$12n - 15 = 45$

$12n = 60$

$n = 5$

49. A rental car costs \$50 for one day plus an additional \$0.25 per mile. What is the cost of renting a car for one day and driving it 75 miles?

~~A~~ $\$18.75$

~~C~~ $\$68.75$

~~E~~ $\$50$

~~D~~ $\$3,768.75$

$50 + .25(75)$

$50 + 18.75 = 68.75$

50. What is the value of t ?

$5t + 2 - 3t = 46$

A 22

C 44

B 24

D 48

$5t + 2 - 3t = 46$

$2t + 2 = 46$

$2t = 44$

$t = 22$

Proportional Relationships

4 Multiple Choice Test B

Choose the best answer.

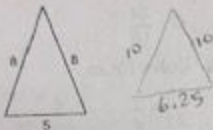
- Larry's truck can travel 432 miles on 18 gallons of gasoline. What is the number of miles per gallon?
 A 27 C 24.5
B 24 D 29
- The cost of 25 pounds of dog food is \$56.50. What is the cost per pound of dog food?
 F \$2.25 **H** \$2.26
 G \$2.02 J \$2.30
- 54 oz of baker's chocolate costs \$9.72. What is the cost per ounce?
A \$0.18 C \$4.32
 B \$1.80 D \$524.88
- Rez drove 258.5 miles in 5.5 hours. What is his average rate of speed?
 F 43 mph H 52 mph
G 47 mph J 53 mph
- Find a ratio equivalent to 15 : 7.
 A 30 to 21 **C** 60 : 28
 B 60 to 35 D 45 : 14
- Find a ratio equivalent to 12 : 9.
 F 6 to 4 **H** 4 to 3
 G 24 : 16 J 6 : 5
- Find a ratio equivalent to $\frac{15}{7}$.
 A $\frac{30}{21}$ **C** $\frac{60}{28}$
 B $\frac{60}{35}$ D $\frac{45}{14}$
- Find a ratio equivalent to $\frac{12}{9}$.
 F $\frac{6}{4}$ **H** $\frac{4}{3}$
 G $\frac{24}{16}$ J $\frac{6}{5}$
- Solve for m .
 $\frac{35}{21} = \frac{5}{y}$ $35y = 105$
 $y = 3$
 A 14 **C** 3
 B 1 D 7
- Jason rode his bike 26 miles at a constant speed for 2 hours. How long will it take him to ride 104 miles at the same speed?
 F 4 hours H 5 hours
 G 7 hours **J** 8 hours
 $\frac{104}{13} = 8$
- Solve for x . $\frac{18}{12} = \frac{45}{x}$ $18x = 540$
 $x = 30$
A 30 C 300
 B 67.5 D 9,720
- Jamal drove 166.8 miles in 3 hours. How long would it take him to drive 389.2 miles at the same rate?
 F 2.33 hours **H** 7 hours
 G 4 hours J 55.6 hours
 $\frac{166.8}{3} =$
 $55.6 \overline{) 389.2}$
 $3 \overline{) 166.8}$
 $15 \downarrow$
 $16 \downarrow$
 $15 \downarrow$
 1

CHAPTER 4

Proportional Relationships

Multiple Choice Test B, continued

13. Which set of side lengths is for a triangle similar to the triangle shown below?

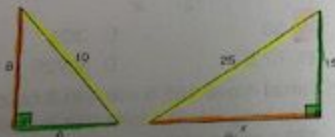


- A 16, 16, 8 C 9, 9, 6
B 10, 10, 6.25 D 4, 4, 2

14. A telephone pole is 90 feet tall. It casts a shadow that is 24 feet long. A tree that is next to the telephone pole is 15 feet tall. How long is the shadow of the tree?

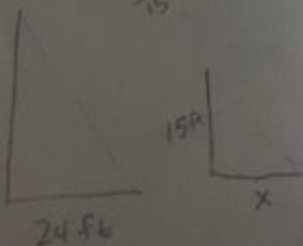
- F** 4 feet H 6 feet
 G 8 feet J 15 feet

15. The two triangles are similar. Find x .



- A** $x = 20$ C $x = 16$
 B $x = 19$ D $x = 15$

$\frac{90}{15} = \frac{24}{x}$ $90x = 360$
 $x = 4$



16. A building with a height of 32 m casts a shadow that is 20 m long. A person standing next to the building casts a shadow that is 1.2 m long. How tall is the person?

- F 0.75 m **H** 1.92 m
 G 1.6 m J 2.8 m

17. On a scale drawing with a scale of $\frac{1}{80}$, the height of a building is 9.75 inches. How tall is the actual building?

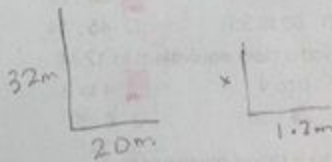
- A 65 feet **C** 780 feet
 B 80 feet D 9,360 feet

18. On a scale drawing with a scale of 1 cm:0.75 m, the height of a tree is 6.5 cm. How tall is the actual tree?

- F 487.5 m H 8.67 m
 G 10 m **J** 4.875 m

$\frac{1}{80} = \frac{9.75}{x}$
 $x = 80(9)$

$\frac{1 \text{ cm}}{0.75 \text{ m}} = \frac{6.5}{x}$
 $x = (6.5)$



$\frac{32}{20} = \frac{x}{1.2}$ $20x = 38.4$
 $x =$