

Name: KEY

Class: _____

Date: _____

ID: A

Math 7 - 1st Semester Review 1 Worksheet

1. Evaluate: $-25 + (-18)$ -43

2. Evaluate: $-13 + 24$ 11

3. Evaluate: $|-5| + |-10|$ 15

4. Evaluate: $-1 - (-10)$ 9

5. Evaluate: $9 - (-17)$ 26

6. Evaluate: $9(-6)$ -54

7. Evaluate: $-14(-7)$ 98

8. Evaluate: $\frac{-84}{-7}$ 12

9. Evaluate: $\frac{-60}{6}$ -10

10. Evaluate: $-3\frac{2}{5} - \frac{7}{10}$ -4\frac{1}{10}

11. Evaluate: $\frac{-17}{-24} \times \frac{2}{3}$ -\frac{17}{108}

12. Evaluate: $5\frac{1}{2} \div (-1\frac{5}{6})$ -2\frac{14}{17}

13. Evaluate: $\frac{4}{2} - \frac{2}{3}$ \frac{2}{3}

14. Evaluate $x + (-5)$ if $x = -4$. -9

15. Evaluate $x + y + z + 7$ if $x = -4, y = 5, z = 7$. 15

16. Evaluate $1 - f - g$ if $f = 3, g = 10$. -12

17. Evaluate $g - (-7) - h$ if $g = 10, h = -9$. 126

18. Evaluate $-6x^2$ if $x = -7$. -294

19. Evaluate $\frac{5y}{x}$ if $x = -7, y = 14$. -10

20. Find $24 + (-16) + (-32) + 64 + (-70)$. -30

21. Choose whether the property shown is Associative, Commutative, or Distributive: $31 + 26 + w = 26 + 31 + w$ Commutative

22. Choose whether the property shown is Associative, Commutative, or Distributive: $4(45 + c) = 180 + 4c$ Distributive

23. Choose whether the property shown is Associative, Commutative, or Distributive: $(65 + a) + p = 65 + (a + p)$ Associative

24. Simplify: $13v - 8v - 13$ 5v - 13

25. Simplify: $15 + (12p + 3)$ 12p + 18

26. Rewrite the expression as an equivalent expression that does not use parentheses: $6(x + 8) + 5(x - 4)$ 11x + 28

27. Rewrite the expression as an equivalent expression that does not use parentheses: $2(x - 7) - 3x + 5$ -x - 9

28. Jack collected $12\frac{3}{5}$ bags of leaves from his yard. Seth collected $2\frac{1}{4}$ times as many bags as Jack. How many bags of leaves did Seth collect? 28\frac{7}{20} bags

29. Of the burgers sold yesterday at Merlin's shop, $\frac{4}{7}$ were veggie burgers and $\frac{2}{7}$ were turkey burgers. What fraction of the burgers sold were veggie burgers and turkey burgers? 17\frac{1}{4} were veggie and turkey

Name: KEY

30. A container can hold $8\frac{2}{7}$ quarts of fruit juice. It contains $7\frac{1}{9}$ quarts of fruit juice. How much more fruit juice is needed to fill the container. 1\frac{13}{63} qts.

31. Solve: $3 = -\frac{1}{2}x$ x = -6

32. Solve: $-252 = 18p$ p = -14

33. Solve: $12y = -24$ y = -2

34. Solve: $9q - 15 = -78$ q = -63

35. Solve: $38.8 - 9.7r = -67.9$ r = 11

36. Solve: $6 + \frac{1}{5}q = 10$ q = 20

37. Solve: $7(x + 3) = -7$ x = -4

38. Solve: $\frac{3}{4}(x - 7) = 6$ x = 15

39. Lauren's English teacher says she can correctly diagram 40 sentences in 18 minutes. Write an equation to find, s , the number of sentences Lauren's English teacher can diagram in one minute. 18x = 40, s = 2.2 sentences

40. Courtney spent \$20.75 at the book store and spent three times that amount at the department store. She had \$18.33 left. Write an expression to find out how much she had initially. 20.75 + 3(20.75) + 18.33 = 101.33

41. Kayla has \$10 to spend at the school supply store. After she buys 5 pencils and a 45¢ eraser, she has \$8.30 left. Write and solve an equation to find out how much each pencil costs. 5p + 45¢ + 8.30 = 10, p = 8.05

42. The Morales family rents a car for the weekend. The rental agency charges a weekend fee of \$35.00 and \$0.12 per mile. If their final bill was \$44.36, write and solve an equation to find out how many miles they drove. 35 + 0.12m = 44.36, m = 78 miles

43. Solve and graph: $2b + 4 \leq -14$ b ≤ -9

44. Solve and graph: $-10b - 1 > -99$ b < 9.8

45. Solve and graph: $-9(y + 6) < 36$ y > -10

46. The lightbulb must be at least 60 watts. Write an inequality to represent this sentence. x ≥ 60

47. Peter went shopping and spent \$487. After shopping, he had at least \$88 left. Write an inequality to find out how much Peter had before he went shopping. x - 487 ≥ 88, x ≥ 575

48. Jack works at a barber shop and earns \$50 on each haircut plus a salary of \$60 per week. If he wants to earn at least \$460 each week, write and solve an inequality to find the number of haircuts he needs to do per week. 50h + 60 ≥ 460, h ≥ 8

49. Barbara has \$108, with which she can buy at most 2 dress shirts that are the same price. Use an inequality to represent the maximum price for each dress shirt she can buy. 2d ≤ 108, d ≤ 54

50. The table below shows the sales of two different ice cream flavors on a Saturday. If the number of units of vanilla ice cream sold Sunday is at least 20 more than the number sold Saturday, write an inequality for the number of units of vanilla ice cream sold Sunday. x + 20 ≥ 40, x ≥ 60 units

| Flavor | Units Sold |
|------------|------------|
| Vanilla | 40 |
| Strawberry | 25 |

51. A television costs \$600 and the sales tax is 6.7%. What is the total cost of the television to the nearest cent? \$640.20

52. Sandra gave 14% of the cost as a tip to the delivery person who delivered her car after service at a cost of \$289. What will be the total cost with tip to the nearest cent? \$329.46

ID: A

53. The total purchase on wedding decorations from a particular store came to \$2,000. A discount of 17% is allowed with the use of a store credit card. If Sally buys the decorations with her store credit, find the sale price of the decorations.

\$1,660

54. Solve: $\frac{a}{17} = \frac{96}{136}$

a = 12

55. Solve: $\frac{79}{y} = \frac{71.1}{109.8}$

y = 12.2

56. A snail moves at a rate of $3\frac{1}{2}$ meters in 38 minutes. How far does the snail travel in one minute?

$\frac{10}{M}$

57. Gina ran $1\frac{1}{2}$ miles in $20\frac{1}{4}$ minutes. How far did she run in one minute?

$\frac{1}{8}$ mile

58. A motorcycle can travel 69 miles on $1\frac{1}{2}$ gallons of gasoline. How far can the motorcycle travel on one gallon of gasoline? If necessary, round the answer to nearest tenth.

46 miles

59. Frank buys a 12-pack of bottled water for \$3.12. How much would Frank spend if he bought one bottle at this rate?

\$0.26

60. Abdul has hiked 14.4 miles in 6 hours. How many miles would Abdul hike in 7.5 hours?

18 miles

61. Three out of eight people have a tablet. If 44,100 people in a certain city have a device, how many do not have a tablet?

62. Does the table show a proportional relationship? Explain your reasoning.

| | | | | |
|---|----|----|---|----|
| x | -3 | -1 | 1 | 3 |
| y | -2 | 2 | 6 | 10 |

Not proportional, unit rates are not the same.
(Graph does not go through origin)

63. Does the table show a proportional relationship? Explain your reasoning.

| | | | | |
|---|----|---|---|---|
| x | -1 | 0 | 1 | 2 |
| y | 3 | 0 | 3 | 6 |

Not proportional, unit rates are not equal

64. The table shows your earnings y for x hours of work. Tell whether x and y show a proportional relationship.

| | | | | |
|---|--------|---------|---------|---------|
| x | 1 | 4 | 7 | 10 |
| y | \$6.25 | \$25.00 | \$43.75 | \$62.50 |

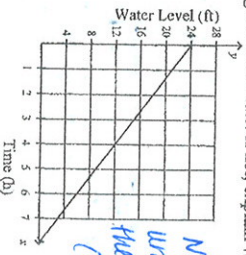
Proportional, unit rate \$6.25 per hour

65. Seagrove Waverunners rents jet skis for \$60 per hour. In addition to the hourly rental fee, there is a charge of \$15 for insurance. Determine whether the number of hours you rent the jet ski proportional to the cost. If so, express the relationship in the form of a ratio. If not, explain why not.

| | | | | |
|--------------|------|-------|-------|-------|
| Hours Rented | 1 | 2 | 3 | 4 |
| Cost | \$75 | \$135 | \$195 | \$255 |

Not proportional, unit rates are not the same

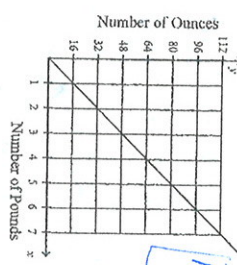
66. Does the graph model a direct relationship meaning is it representing a proportional relationship? If so, give the unit rate. If not, explain why not.



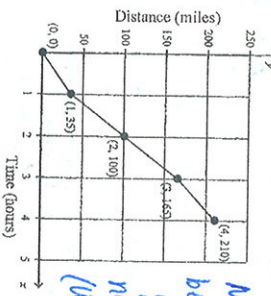
Not proportional, unit rates are not the same.
(Does not pass through origin)

67. The number of ounces is directly proportional to the number of pounds. How many ounces are in a pound?

16 ounces per pound



68. Determine if the graph models a directly proportional relationship? Explain your reasoning.



Not proportional because the graph is not linear. Unit rates are not the same.

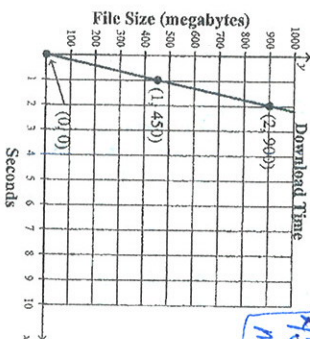
69. Wyatt uses a family recipe to make stuffing. If he plans on using $3\frac{3}{4}$ cups of chicken broth, about how many pounds of bread does Wyatt need to use to keep the relationship between chicken broth and bread proportional?

| | | | |
|-------------------|---|---|---|
| Chicken Broth (c) | 1 | 1 | 1 |
| Bread (lb) | 4 | 1 | 2 |
| | 5 | 1 | 1 |
| | 8 | | |

1 1/2 pounds

70. The download time of a file is directly proportional to the size of the file. How many megabytes can be downloaded in one second?

150 megabytes

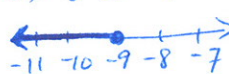
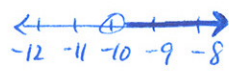


71. Which one of the relationships described is NOT proportional?

- A Cedrick earns \$9.75 for each day he pet-sits; is the relationship between the money he earns and the days he works proportional?
- B The length of the side of a square and its perimeter; is the relationship between the measurements proportional?
- C A car travels at a constant speed of 35 miles per hour; is the relationship between the distance and the time proportional?
- D Marianne is 15 years old and her brother is 5 years old; is the relationship between their ages proportional?

Math 7 Semester Review 1 Worksheet (odds) 42 Q, 25 pt.

- 1) -43
- 3) 15
- 5) 26
- 7) 98
- 9) -10
- 11) $-\frac{17}{108}$
- 13) $\frac{2}{3}$
- 15) 15
- 17) 26
- 19) -10
- 21) Commutative
- 23) Associative
- 25) $12p + 18$
- 27) $-x - 9$

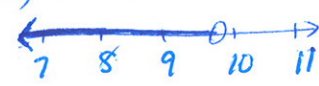
- 29) $17\frac{6}{7}$ veggie and turkey
- 31) $x = -6$
- 33) $y = -2$
- 35) $t = 11$
- 37) $x = -4$
- 39) $18x = 40$
2.2 sentences
- 41) $5p + 8.75 = 10$
\$0.25
- 43) $b \leq -9$

- 45) $y > -10$


- 47) $x - 487 \geq 88$
 $x \geq \$575$
- 49) $2d \leq 108$
 $d \leq \$54$
- 51) \$640.20
- 53) \$1,660
- 55) $y = 12.2$
- 57) $\frac{1}{18}$ mile
- 59) \$0.26
- 61)
- 63) Not proportional, unit rates not the same
- 65) Not proportional; unit rates not the same
- 67) 16 ounces per pound
- 69) $1\frac{1}{2}$ pounds
- 71) D

Math 7 Semester Review 1 Worksheet (evens)

40 Q, 25 pt.

- 2) 11
- 4) 9
- 6) -54
- 8) 12
- 10) $-4\frac{1}{10}$
- 12) $-2\frac{14}{17}$
- 14) -9
- 16) -12
- 18) -294
- 20) -30
- 22) Distributive
- 24) $5v - 13$
- 26) $11x + 28$

- 28) $28\frac{7}{20}$ bags
- 30) $1\frac{11}{3}$ quarts
- 32) $p = -14$
- 34) $q = -63$
- 36) $q = 20$
- 38) $x = 15$
- 40) $20.75 + 3(20.75) + 18.33$
\$101.33
- 42) $35 + 0.12m = 44.36$
78 miles
- 44) $b < 9.8$

- 46) $x \geq 60$

- 48) $50h + 60 \geq 460$
 $h \geq 8$ haircuts
- 50) $x + 20 \geq 40$
 $x \geq 60$ units
- 52) \$329.46
- 54) $a = 12$
- 56) $\frac{1}{10}$ meters
- 58) 46 miles
- 60) 18 miles
- 62) Not proportional, unit rates not the same
- 64) Proportional, unit rate: \$6.25 per hour
- 66) Not proportional, unit rates not equal (graph does not go through origin)
- 68) Not proportional, unit rates not equal (graph not linear)
- 70) 450 megabytes

