Summer Math Packet 2018-2019

Rising 8th Graders

The purpose of this summer work is to help prepare you for your upcoming math class. The work will tap into your prior knowledge and review past content, concepts, and skills. Our expectation is that you arrive on the first day of school able to demonstrate mastery of the material in this packet. In order to achieve this, please allow yourself plenty of time to work on the problems, use online resources such as LearnZillion (no sign in required), Khan Academy among the many.

This work will be due on **Friday, September 7th**, and will be 3% of your first trimester grade. 10% will be deducted for each day it is late. Summer work will not be accepted after Sept. 12th. Complete assignments collected by the due date will receive full credit. Deductions will be based on percentage of completion and work shown.

HOW TO ACCESS THE ACTIVITY:

Log on to Quizizz.join.com. Use the code 517362 to find the activity, *Rising 8th Graders Summer Math Assignments 2018*. Before you begin this activity, print your copy of the recording sheet (note: copies are also available at TRMS main office) and be sure to record your name and game name (a school appropriate nickname) at the top of the sheet.

There are 60 questions in the game. Use the paper copy of the game to show your work for each problem. For full credit all work must be shown.

DO NOT USE A CALCULATOR! This work is to show that you can calculate problems without the help of a calculator. Indicate your answers, both in the computer and in written format, then correct your work using a pen showing the correct answer.

- The correct answer will show at the **TOP** of the page after you have completed the question. See the top of the assignment for an example of how to record and correct your work.
- We recommend that you do two to four problems every day or two. You will not lose your work; the game picks up where you left off.
- During the first week of school, bring your completed and corrected paper copy in for a homework grade. Be sure to put your name (and game name) at the top of the hard copy.
- Your teacher might choose to give a non-graded assessment on the first week of school in order to target remediation strategies and requirements.

See you in August!

8th Grade Math Teachers

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Quizizz

My game name: _____ actual

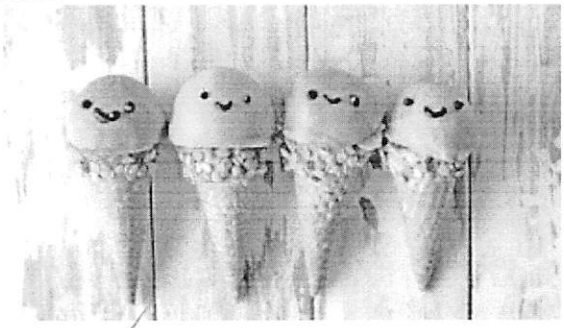
Name : _____

Class : _____

Date : _____

Rising 8th Graders Summer Math Assignment 2018

1. Mrs. Math plans to eat 523 ice cream cones this summer. Mrs. Math has already eaten 128 ice cream cones (YUM!). How many cones must she eat to reach her goal?



$$\begin{array}{r} {}^{4}\not{5}{}^{11}\not{2}3 \\ -\ 128 \\ \hline 395 \end{array}$$

395 more cones to eat Yum!

- [ ] a) too many to count
- [ ] b) 359
- [x] c) 395
- [ ] d) 651

2. The temperature on a cold winter day starts out at 10 degrees, but it drops rapidly 24 degrees due to a strong cold front moving in. What is the current temperature?

- [ ] a) 14
- [ ] b) 34
- [ ] c) -14
- [ ] d) -34

3. -20+(-11)

- [ ] a) 31
- [ ] b) 9
- [ ] c) -9
- [ ] d) -31

4. 18 - (-4)

- [ ] a) -22
- [ ] b) 4
- [ ] c) 22
- [ ] d) -4

5. -8 + 13

- [ ] a) 21
- [ ] b) -21
- [ ] c) 5
- [ ] d) -5

6. A football team gained 9 yards on one play and then lost 22 yards on the next. Write a sum of integers to find the overall change in field position.

☐ a) -9 + (-22) = -13 ☐ b) 9 + (-22) = 13

☐ c) 9 + (-22) = -13 ☐ d) none

7. A dolphin is swimming 10 feet below the surface. It descends another 12 feet before rising 4 feet. Which of the following would be the correct way to solve this word problem?

☐ a) -10 + -12 + -4 ☐ b) -10 - 12 + 4

☐ c) 10 - 12 - 4 ☐ d) -10 + 12 + 4

8. An elevator went up 15 floors, down 9 floors, up 11 floors, and down 19 floors. Find the net change.

☐ a) 13 ☐ b) 3

☐ c) -2 ☐ d) -4

9. 72÷(-8)

☐ a) -9 ☐ b) 9

☐ c) 7 ☐ d) -7

10. −15 × −30 × 20 ×−100 =

☐ a) -50,000 ☐ b) −70,000

☐ c) −900,000 ☐ d) -500,000

11. Solve:

(-2)(-1)(-3)(-4)(-1)

☐ a) -11 ☐ b) 24

☐ c) -24 ☐ d) 11

12. Evaluate the expression

-8 - 14 ÷ 2 + 5

☐ a) -10 ☐ b) 10

☐ c) -3.14 ☐ d) 3.14

13. Evaluate the expression

24 ÷ (-4) + (-2)

☐ a) -8 ☐ b) 8

☐ c) -10 ☐ d) 10

14. Evaluate the expression

$4 + (-4 \cdot 4) \div 8$

- ☐ a) 2
- ☐ b) -3
- ☐ c) -2
- ☐ d) 3

15. Solve the proportion.

$$\frac{k}{6} = \frac{15}{18}$$

- ☐ a) k=5
- ☐ b) k=3.3333333
- ☐ c) k=60
- ☐ d) k=90

16. Find the Unit Rate.

405 rotations in 5 minutes

- ☐ a) 81 rotations per minute
- ☐ b) 73 rotations per minute
- ☐ c) 18 rotations per minute
- ☐ d) 810 rotations in 10 minutes

17. In an animal shelter, the ratio of dogs to cats is 5 to 3. There are 25 dogs. Write and solve a proportion to find the number c of cats.

- ☐ a) c=15
- ☐ b) c=18
- ☐ c) c=21
- ☐ d) c=16

18. The pet store has 18 dogs toys for sale. 10 toys are frisbees and the rest are bones. What is the ratio of bones to frisbees in simplest form?

- ☐ a) 5/9
- ☐ b) 8/10
- ☐ c) 4/5
- ☐ d) 18/10

19. Find $-2\frac{1}{4} - 3\frac{7}{8}$

- ☐ a) $1\frac{5}{8}$
- ☐ b) $-1\frac{5}{8}$
- ☐ c) $-6\frac{1}{8}$

20. -3/7 + 4/5

- ☐ a) 43/35
- ☐ b) -13/35
- ☐ c) -43/35
- ☐ d) 13/35

21. - 1/3 + (-1/6)

- ☐ a) -1/2
- ☐ b) -2/6
- ☐ c) 1/3
- ☐ d) -2/18

22. A girl's hair is 12 ⅜ inches long. If she has 2 1/2 inches cut off, how long will her hair be?

- ☐ a) 10 1/4 inches
- ☐ b) 10 3/16 inches
- ☐ c) 9 7/8 inches
- ☐ d) 10 7/8 inches

23.

$$-8\frac{3}{8} - 10\frac{1}{6}$$

- ☐ a) -18 2/3
- ☐ b) -17 13/24
- ☐ c) -18 13/24
- ☐ d) 1 19/24

24.

$$-5 - \frac{5}{3}$$

- ☐ a) -6 2/3
- ☐ b) -5 2/3
- ☐ c) -4 2/3
- ☐ d) -1/3

25.

$$-\frac{1}{2} - \left(-\frac{5}{9}\right)$$

- ☐ a) -1/18
- ☐ b) -1 1/18
- ☐ c) 1/18
- ☐ d) 1 1/18

26. Find the distance between the two numbers on a number line.

−2.2, 8.4

- ☐ a) 6.2
- ☐ b) -6.2
- ☐ c) 10.6
- ☐ d) -10.6

27. Find the distance between the two numbers on a number line.

$$-7, -3\frac{2}{3}$$

- ☐ a) 5 11/12
- ☐ b) -3 1/3
- ☐ c) 3 1/3
- ☐ d) 10 2/3

28. 6.59 + (−7.8) − (−2.41)

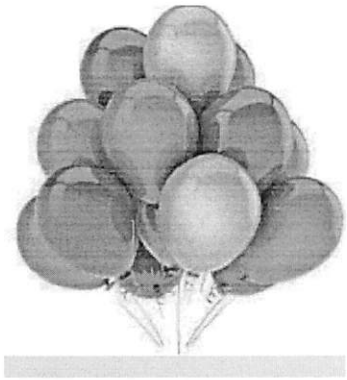
- ☐ a) 16.8
- ☐ b) 11.98
- ☐ c) -3.62
- ☐ d) 1.2

29.

$$2\frac{2}{3} \times 3\frac{1}{4}$$

- ☐ a) 6 2/3
- ☐ b) 8 2/3
- ☐ c) 32/39
- ☐ d) 5 2/3

30. Ella has 5 balloons. Taylor has 7 balloons. Write the ratio of Ella's balloons to Taylor's balloons.



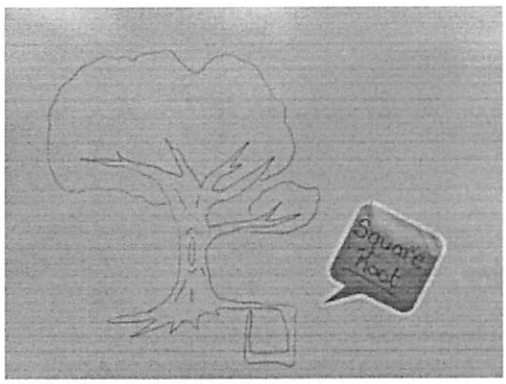
- ☐ a) 7:5
- ☐ b) 5:7
- ☐ c) 3:5
- ☐ d) 5:3

31. Kelly has 10 apps on her iPad. 5 are school apps, 2 are music apps, and 3 are games. What is the ratio of school apps to game apps?

☐ a) 5 to 2 ☐ b) 3 to 5

☐ c) 5 to 10 ☐ d) 5 to 3

32. What does 3^2 mean?



☐ a) 3 x 2 ☐ b) 3 x 3

☐ c) 2 x 2 x 2

33. What step would I do second ? (4-2) x 9 + 7 =

☐ a) multiplication ☐ b) subtraction

☐ c) addition ☐ d) dividing

34. What would be my first step? 3 + 4 x 6 - 4 =

☐ a) addition ☐ b) multiplication

☐ c) subtraction ☐ d) exponents

35. Which operation would you do first?

10 - 7 + 8 ÷ 1

☐ a) Subtraction ☐ b) Addition

☐ c) Division ☐ d) Multiplication

36. Alycia earned $20.40 in 3 hours. What is her unit rate in dollars per hour?

☐ a) $7 per hour ☐ b) $6 per hour

☐ c) $6.80 per hour ☐ d) $17.40 per hour

37. Which operation would you do first in the following equation?

$10 - 4 \div 1 \cdot 5$

☐ a) Subtraction ☐ b) Division

☐ c) Multiplication ☐ d) Addition

38. What is 23% of 65?

☐ a) 14.95 ☐ b) 15.95

☐ c) 16 ☐ d) 13.75

39. What is 33% of 50?

☐ a) 16 ☐ b) 16.3

☐ c) 17.4 ☐ d) 16.5

40. Sticky hands cost $0.50 each Mrs. Rice wants to purchase 100 sticky hands. How much will she pay?

☐ a) $50.00 ☐ b) 0.50

☐ c) $500 ☐ d) $5.00

41. What is 0.2 x 0.002?

☐ a) 0.4 ☐ b) 0.0004

☐ c) 4.0 ☐ d) .004

42. What is the product of 1.7 and 0.2?

☐ a) 3.4 ☐ b) 0.19

☐ c) 0.34 ☐ d) 1.9

43. Mrs. Rice is buying her class snacks for each student. If there are 25 students in her classes and snacks cost $0.75 each, about how much will she spend? Round to the nearest dollar.

☐ a) $20.00 ☐ b) $19.00

☐ c) $18.50 ☐ d) $18.00

44. John is measuring his bedroom wall using his shoe. If his shoe is 9.8 inches long and he measured 27 shoe lengths, about how long is his wall? (hint: estimation)

☐ a) 264.6 ☐ b) 270

☐ c) 300 ☐ d) 200

45. 4.5 x 6.2

☐ a) 2,790 ☐ b) 279

☐ c) 27.9 ☐ d) 2.79

46. What is the most accurate estimate for the following problem:
35.22 x 12.8

☐ a) 455 ☐ b) 450.8

☐ c) 360 ☐ d) 468

47. What is the most accurate estimate for the following problem:
9.89 x 34.6

☐ a) 350 ☐ b) 306

☐ c) 3332 ☐ d) 300

48. What is the most accurate estimate for the following problem:
98.76 ÷ 5.4

☐ a) 100 divided by 5 ☐ b) 98 divided by 5

☐ c) 100 divided by 6 ☐ d) 99 divided by 4

49. Solve the following problem.
318.5 ÷ 3.5

☐ a) 91 ☐ b) 9.1

☐ c) 910 ☐ d) 92

50. What number is 20% of 102?

$$\frac{\text{part}}{\text{whole}} = \frac{\text{percent}}{100}$$

PERCENT - the number with the percent sign (%).
PART - the number with the word is.
WHOLE - the number with the word of.

☐ a) 204 ☐ b) 122.4

☐ c) 20.4 ☐ d) 20

51. What is 3% of 750?

☐ a) 2.25 ☐ b) 22.5

☐ c) 225 ☐ d) 250

52. The Middletown Zoo has 130 different exhibits. Of those 130 exhibits, 30% of them contain birds. How many exhibits contain birds?

☐ a) 49 ☐ b) 39

☐ c) 60 ☐ d) 25

53. Sam bought an $85 jacket for 40% off the regular price. How much did he pay for the jacket?

☐ a) 75 ☐ b) 36

☐ c) 51 ☐ d) 48

54. What is the first step you perform to each side when solving this equation:
$5x + 7 = 12$

☐ a) Divide by 5 ☐ b) Subtract 5

☐ c) Multiply by 7 ☐ d) Subtract 7

55. Solve for x:
$8x - 10 = -34$

☐ a) 4 ☐ b) 3

☐ c) -3 ☐ d) -24

56. Solve:

$3x + 7 = -8$

☐ a) 5 ☐ b) -5

☐ c) -12 ☐ d) -18

57. Solve:

$7x - 3x - 8 = 24$

☐ a) 8 ☐ b) -8

☐ c) 3.2 ☐ d) 4

58. Solve:

$3(x - 2) = 18$

☐ a) 6.7 ☐ b) 4

☐ c) 8 ☐ d) -4

59. Solve:

$-4(x - 5) = -12$

☐ a) 7 ☐ b) 4

☐ c) 8 ☐ d) 1.75

60. Find the error in the problem below

$19 - 2k = 3k - 1$

$+3k \quad +3k$

$19 + 1k = -1$

$-19 \qquad -19$

$k = -20$

☐ a) They should have divided by 1 for the last step

☐ b) They should add 19 instead of subtracting 19

☐ c) I can not find an error

☐ d) Instead of adding 3k they should subtract 3k

61. Find the Error

What error did the student make when solving the equation:

$5x + 6 = 66$

$5x - 6 = 66 - 6$

$5x = 60$

$5*5x = 60*5$

$x = 300$

☐ a) The student subtracted 6 from both sides instead of adding

☐ b) Student multiplied by 5 instead of dividing by 5

☐ c) Student got the wrong answer when subtracting 66-6

☐ d) The student did not correctly eliminate the variable from one side of the equation