

"Today's Learners, Tomorrow's leaders"

Summer Before 8th Grade

Dear Parents/Guardians,

Congratulations on the completion of your child's 7th grade year! As your child prepares for the middle school experience, it is important that they maintain the skills necessary to be successful. The mathematics teachers have prepared a summer packet for the students to complete. This will enhance and strengthen their skills.

This packet will be checked on the first day of school and counted as a homework grade. Please complete the packet in its entirety. Please do not leave any questions blank. All work should be shown for every question.

WE STRONGLY RECOMMEND WAITING UNTIL THE LATTER PART OF THE SUMMER TO COMPLETE THIS PACKET AS THAT WILL HELP THE STUDENTS BEST REFRESH THEIR SKILLS PRIOR TO SCHOOL BEGINNING IN SEPTEMBER!!!

Please double check that you have printed out the correct summer packet that aligns with the class your child will be taking in 8th grade. This packet is for students who will be taking **Pull Out Replacement Math 8** in 8th grade.

Some example problems have been provided for reinforcement as well as help in completing this summer packet. Please click on the link for additional help or you may visit the following websites.

www.aaamath.com

www.coolmath.com

www.funbrain.com

www.kidsnumbers.com

www.mathleague.com

www.khanacademy.org

www.mathplayground.com

Enjoy your summer break and we look forward to seeing you again in September!

Name: _____

Rising 8th Grade Summer Packet

For students entering Pull Out Replacement Math 8

PLEASE WRITE ALL ANSWERS ON THE LINES AT THE RIGHT.

SHOW ALL WORK FOR EVERY PROBLEM.

USAGE OF A CALCULATOR IS ALLOWED

PART 1 – ORDER OF OPERATIONS

Simplify. WATCH YOUR SIGNS!!! (Example: <https://goo.gl/qO2VUK>)

1) $8 - 3 + 9 - 2$

2) $(-9)(-2)(3)$

1. _____

2. _____

3) $-30 \div -5$

4) $4 - 13$

3. _____

4. _____

5) $(5)^2$

6) 3^2

5. _____

6. _____

7) 2^5

8) $(7)^3$

7. _____

8. _____

9) $12 - 6 \div 2 \cdot 3$

10) $9 - (6 + 4^2)$

9. _____

10. _____

11) $14 + |-2|$

12) $15 + 2 - (-7)$

11. _____

12. _____

PART 2 – RATIONAL NUMBERS

13) $\frac{1}{4} + \frac{2}{8}$

14) $\frac{5}{6} - \frac{1}{3}$

15) $5\frac{1}{9} + \frac{3}{4}$

13. _____

14. _____

15. _____

16) $\frac{7}{8} \cdot \frac{5}{14}$

17) $\frac{3}{4} \div \frac{9}{10}$

18) $4\frac{2}{7} \div 6\frac{3}{5}$

16. _____

17. _____

18. _____

PART 3 – EXPRESSIONS

Evaluate the following if: $w = 3$, $x = -5$, $y = -2$, $m = 2$, $n = 7$, and $p = 6$

(Example: <http://www.showme.com/sh/?h=w3kFme8>)

19) $wx + yn$

20) $9w - x$

19. _____

20. _____

21) $x^2 - 4y$

22) $yp - m$

21. _____

22. _____

Simplify the following expressions by combining like terms and distributing.

23) $14x - 9 + 2x + 3 - 8x$

24) $8m - 4 + m - 9$

23. _____

24. _____

25) $5(2x - 3) + 6$

26) $4(3x + 1)$

25. _____

26. _____

PART 4– EQUATIONS

Solve the following equations. Show all work.

(Example: <http://www.showme.com/sh/?h=ujv9Ck4>)

27) $5m = 30$

28) $g - 10 = 25$

27. _____

28. _____

29) $x + 6 = -9$

30) $\frac{x}{8} = -5$

29. _____

30. _____

31) $12 = -2n$

32) $14 + y = -11$

31. _____

32. _____

PART 5 – RATES/RATIOS/PROPORTIONS

Find the unit rate

33) work for 12 hours and earn \$140 33. _____

34) travel 900 miles in 15 hours 34. _____

Solve the following proportions. Round answer to the nearest tenth.

35) $\frac{3}{7} = \frac{11}{x}$ 36) $\frac{y}{3} = \frac{191}{20}$ 35. _____

36. _____

Set up a proportion and solve.

37) If Susan can read 40 pages in 12 minutes, how many pages can she read in 50 minutes?

37. _____

38) The key on a map says 2 inches equals 7 miles. If two cities are 9 inches apart on the map, how far apart are they in real life?

38. _____

PART 6 – PERCENTS

Convert to a decimal.

39) $\frac{7}{20}$

40) 31%

41) $\frac{4}{9}$

39. _____

40. _____

41. _____

Convert to a fraction.

42) 3.25

43) 8%

44) 0.125

42. _____

43. _____

44. _____

Convert to a percent.

45) 0.84

46) $\frac{2}{3}$

47) 6.12

45. _____

46. _____

47. _____

Solve. Show work.

48) 56 is what percent of 80?

49) 19 is 20% of what number

48. _____

49. _____

Solve the following problems using any method.

- 50) 30 students in grade 8 finished their summer packet before August 15. This was 12% of all the students. How many students are in grade 8?

50. _____

- 51) There are 1,200 people at the beach. If 88% of them went in the water, how many people **DID NOT** go in the water?

51. _____

- 52) A \$800 T.V. is on sale for 15% off. What is the cost of the T.V.?

52. _____

- 53) You go out to dinner and the bill is \$45.12. You want to leave an 18% tip. **In total**, how much money should you leave?

53. _____

- 54) The cost of a calculator is \$31. If the tax rate is 7%, what is the final cost of the calculator?

54. _____