

# POND ROAD MIDDLE SCHOOL KNIGHTS

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*"Today's Learners, Tomorrow's leaders"*

## Summer Before 8th Grade

Dear Parents/Guardians,

Congratulations on the completion of your child's 7<sup>th</sup> 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 8<sup>th</sup> grade. This packet is for students who will be taking **Pull Out Replacement Math 8** in 8<sup>th</sup> 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](http://www.aaamath.com)

[www.coolmath.com](http://www.coolmath.com)

[www.funbrain.com](http://www.funbrain.com)

[www.kidsnumbers.com](http://www.kidsnumbers.com)

[www.mathleague.com](http://www.mathleague.com)

[www.khanacademy.org](http://www.khanacademy.org)

[www.mathplayground.com](http://www.mathplayground.com)

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

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

## **Rising 8<sup>th</sup> 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. \_\_\_\_\_

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**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. \_\_\_\_\_

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**Convert to a fraction.**

42) 3.25

43) 8%

44) 0.125

42. \_\_\_\_\_

43. \_\_\_\_\_

44. \_\_\_\_\_

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**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. \_\_\_\_\_