

POND ROAD MIDDLE SCHOOL

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"TODAY'S LEARNERS, TOMORROW'S LEADERS"

Summer, 2019

Dear Parents/Guardians,

Congratulations on the completion of your child's 6th grade year! As your child prepares for the middle school experience, it is important that he/she maintains 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!!!

The packet is located on the Pond Road Middle School website. Please print out the document titled, "Incoming 7th Grade Math Packet".

- ✓ Students who will be taking **Math 7** or **PreAlgebra** should complete parts 1 – 7.
- ✓ Students entering **Pre-Algebra Accelerated** should complete parts 1 – 11.

Tutorial videos for each type of problem have also been provided in the document, and can be accessed by the hyperlink.

The following websites may be used for additional reinforcement and review.

www.khanacademy.org

www.coolmath.com

www.aaamath.com

www.funbrain.com

www.kidsnumbers.com

www.mathleague.com

www.mathplayground.com

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

Name: _____

Rising 7th Grade Summer Packet

PLEASE WRITE ALL ANSWERS ON THE LINES AT THE RIGHT.
SHOW ALL WORK FOR EVERY PROBLEM.
USAGE OF A CALCULATOR IS NOT ALLOWED.

PART 1 – DECIMALS

Adding and Subtracting Decimals

*** <http://www.showme.com/sh/?h=1YdNTHs>

Find each sum or difference.

1) $46.2 - 34.09$

2) $9.06 - 7.2$

1. _____

2. _____

3) $8.037 + 7 + 12.4$

4) $15.65 - 8.7$

3. _____

4. _____

Multiplying Decimals

*** <http://www.showme.com/sh/?h=3DLJyq>

Find each product.

5) $1.42 \cdot 7.2$

6) $(5.03)(2.8)$

5. _____

6. _____

7) $(0.006)(3.75)$

8) $(3.2)^2$

7. _____

8. _____

Dividing Decimals

*** <http://www.showme.com/sh/?h=EpWayjg>

Find each quotient.

9) $346.8 \div 5.1$

10) $0.32 \overline{)3968}$

9. _____

10. _____

11) $2814 \div 0.14$

12) $99 \div 0.09$

11. _____

12. _____

Write the answer for the following using the rules of operations with base of 10.

*** <http://www.showme.com/sh/?h=DXBj960>

13) $87.3 \times 1,000$

13. _____

14) $98.765 \times 10,000$

14. _____

15) $34.56 \div 10,000$

15. _____

16) $234.563 \div 100$

16. _____

PART 2 – FRACTIONS

Adding and Subtracting Mixed Numbers

*** <http://www.showme.com/sh/?h=VqHIIvg>

Find each sum or difference. Write it in simplest form.

17) $2\frac{2}{5} + 3\frac{4}{9}$

18) $7\frac{3}{4} + 11\frac{2}{3}$

17. _____

18. _____

19) $14\frac{8}{9} - 5\frac{1}{2}$

20) $23\frac{1}{4} - 7\frac{4}{5}$

19. _____

20. _____

Multiplying and Dividing Mixed Numbers

*** <http://www.showme.com/sh/?h=LysM6lM>

Find each product or quotient. Write it in simplest form.

21) $5 \cdot 1\frac{1}{7}$

22) $3\frac{3}{5} \cdot 2\frac{1}{12}$

21. _____

22. _____

23) $5\frac{5}{8} \div 5$

24) $8\frac{1}{3} \div 4\frac{4}{5}$

23. _____

24. _____

PART 3 – NUMBER SENSE

*** <http://www.showme.com/sh/?h=OiPlv28>

25) Write the prime factorization of 144.

26) Find the Greatest Common Factor (GCF) of 12 and 18.

27) Find the Least Common Multiple (LCM) of 24 and 36.

Read and answer the following questions carefully.

28) Round 8,956.456 to the hundredths place. 28. _____

29) Round 1,456.789 to the tenths place. 29. _____

30) Round 6,543.982 to the ones place. 30. _____

31) Round 4,317.689 to the tens place. 31. _____

Round the following dollar amounts correctly to the nearest penny.

32) \$49.1748 32. _____

33) \$1,839.586 33. _____

34) \$651.398 34. _____

35) \$748.996 35. _____

36) Order the following numbers from least to greatest. Rewrite the numbers in order.

0.8 0.5 0.85 0.58 0.508 0.805

37) Order the following numbers from greatest to least. Rewrite the numbers in order.

-2.3 -2 -1.7 -2.1 -1 -2.9

*** <http://www.showme.com/sh/?h=8A06BHc>

38) What is the divisibility rule for 3?

What is the divisibility rule for 4?

What is the divisibility rule for 9?

39) Using the above rules, determine if 1,347 is divisible by 3?

Using the above rules, determine if 18,728 is divisible by 4?

Using the above rules, determine if 431,262 is divisible by 9?

PART 4 – PLOTTING POINTS

*** <http://www.showme.com/sh/?h=KQ8cMhk>

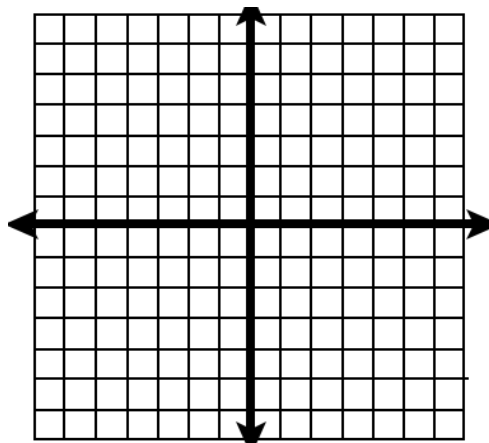
Plot the following points on the graph to the right. Label them.

40) A: (5, 2)

41) B: (-2, 6)

42) C: (3, 0)

43) D: (-1, -4)



PART 5 – 2D GEOMETRY

Find the Area and Perimeter of the following figures. Show work for the areas. Use 3.14 for pi. You may use a calculator.

The following formulas might be helpful.

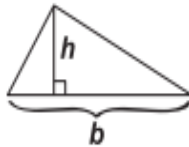
Circle

$$\begin{aligned} \text{Area} &= \pi r^2 \\ \text{Circumference} &= 2\pi r \\ &= \pi d \end{aligned}$$



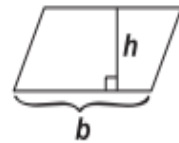
Triangle

$$\text{Area} = \frac{1}{2}bh$$

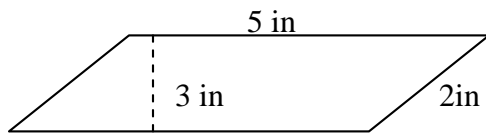


Parallelogram

$$\text{Area} = bh$$



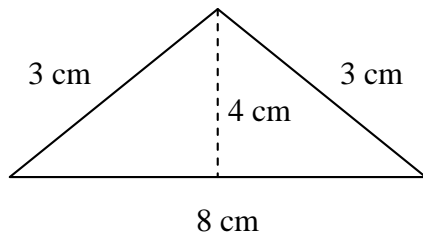
44)



Area _____

Perimeter _____

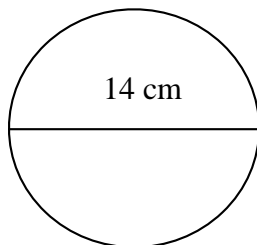
45)



Area _____

Perimeter _____

46)



Area _____

Circumference _____

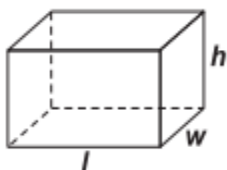
PART 6 – 3D GEOMETRY

The following formulas might be helpful.

Rectangular Prism

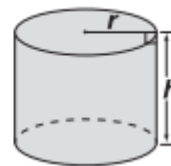
$$\text{Volume} = lwh = Bh$$

$$\text{Surface Area} = 2lw + 2wh + 2lh$$

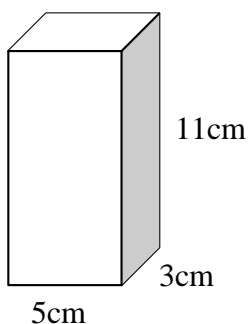


Cylinder

$$\text{Volume} = \pi r^2 h$$



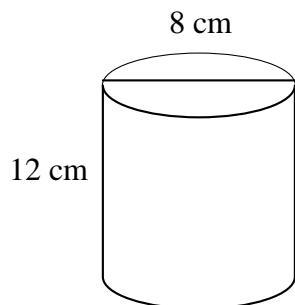
47) Find the Volume and Surface Area of the following figure. Show all work.



Volume _____

Surface Area _____

48) Find the Volume of the following figure. Show all work. Use 3.14 for pi and use a calculator.



Volume _____

PART 7 – EQUATIONS

*** <http://www.showme.com/sh/?h=uAWAxF2>

49) Is 7 a solution to the following equation? Show work. Do not just solve the equation.

$$4x - 12 = 16$$

Solve the following equations using inverse operation. Show all work.

Example:

$$\begin{array}{r} x + 18 = 30 \\ -18 \quad -18 \\ \hline x = 12 \end{array}$$

50) $9 + x = 12$

51) $3 = x - 14$

50. _____

51. _____

52) $5x = 30$

53) $\frac{x}{4} = 11$

52. _____

53. _____

FOR STUDENTS ENTERING
PRE-ALGEBRA ACCELERATED
PLEASE COMPLETE SECTIONS 8 - 11

PART 8 – INTEGERS

*** <http://www.showme.com/sh/?h=g6dHoHc>

Simplify the following using the order of operations. Show all work.

54) $60 - 20 \div 4 \cdot 5$

55) $24 + 3^2 - 2(6 + 5)$

54. _____

55. _____

Simplify.

56) $-2 - 8 - (-3)$

57) $(-6)(3) - 12$

56. _____

57. _____

58) $\frac{-24}{-8} - (5)(-2)$

59) $|9 - 20| - (6 - 8)$

58. _____

59. _____

PART 9 – PROPORTIONS

*** <http://www.showme.com/sh/?h=0QzcOHY>

60) Solve the proportion. $\frac{5}{9} = \frac{x}{15}$

60. _____

61) Use a proportion to solve the following problem.

If Frank can read 12 books in 30 days, how many complete books can he read in 50 days?

61. _____

PART 10 – COMPLEX EQUATIONS

*** <http://www.showme.com/sh/?h=gCvzFTM>

Solve the following. Show all work.

62) $3x + 11 = 35$

63) $9x - 5 = 22$

62. _____

63. _____

64) $4(2x - 5) = 30$

65) $5x - 2x + 5 = 17 - 9$

64. _____

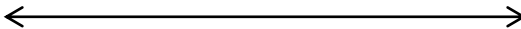
65. _____

PART 11 – INEQUALITIES


*** <http://www.showme.com/sh/?h=lnY0dRQ>

Graph the following inequalities on the number line to the right of each problem.

66) $x < 5$

66. 

67) $x \geq 2$

67. 

68) $-3 < x$

68. 

Solve the following inequalities. Show all work.

69) $4 + x \leq 20$

70) $-7x > 21$

69. _____

70. _____