Entering 6th Grade Summer Math Packet

First Name: _____ Last Name: _____

6th Grade Teacher: _____

I have checked the work completed: _____
Parent Signature

1. Find the products. **This page should be completed in 3 minutes no more than 4 minutes. Have someone time you.** Any multiplication problem you do not know quickly, practice on flash cards.

6	4	7	5	12	3	6	3	0	7	5	6	3	8
x2	x4	x2	x4	x0	x5	x3	x8	x8	x3	x5	x4	x9	x3
6	2	3	8	7	12	8	3	11	7	9	4	4	9
x5	x12	x6	x2	x5	x1	x4	x7	x4	x6	x2	x8	x6	x3
4	5	0	5	9	5	2	9	5	11	5	9	7	7
x7	x0	x3	x8	x4	x7	x1	x5	x6	x5	x9	x8	x7	x9
8	6	8	1	9	9	8	1	9	2	1	3	12	1
x8	x6	x7	x2	x6	x9	x6	x9	x1	x5	x1	x4	x3	x3
8	8	12	8	12	5	3	4	2	7	6	2	6	12
x0	x1	x4	x9	x0	x1	x2	x0	x2	x1	x8	x6	x7	x5
8	4	2	9	12	11	2	7	0	6	1	5	3	2
x5	x1	x8	x7	x8	x6	x9	x4	x2	x9	x0	x2	x3	x4
4	12	4	4	1	2	11	6	7	5	2	1	4	11
X9	x6	x2	x3	x4	x3	x7	x1	x8	x3	x7	x8	x5	x4

2. Find the quotients. **This page should be completed in 3 no more than 4 minutes. Practice any problems you do not know instantly.** Think of the multiplication fact family. The better you know your multiplication facts the easier division will be.

2)2	3)9	8)32	7)49	5)10	4)0	1)1	4)8	2)12	9)54	1)3	1)2	2)4
8)8	7)63	8)40	5)0	4)4	4)12	9)45	9)63	6)6	3)12	1)7	3)0	1)9
2)16	3)3	3)15	5)20	3)18	3)6	5)15	7)0	9)27	4)16	7)21	4)20	7)28
8)16	3)21	9)18	4)24	2)6	1)8	5)35	7)35	3)27	6)36	3)24	2)0	4)32
9)9	4)36	6)42	5)40	8)64	7)14	6)30	8)56	1)5	4)28	7)56	8)24	6)24

81 ÷ 9= _____	48 ÷ 6 = _____	18 ÷ 6 = _____	42 ÷ 7 = _____
10 ÷ 2 = _____	54 ÷ 6 = _____	36 ÷ 9 = _____	45 ÷ 5 = _____
72 ÷ 8 = _____	8 ÷ 2 = _____	72 ÷ 9 = _____	6 ÷ 1 = _____
25 ÷ 5 = _____	5 ÷ 5 = _____	18 ÷ 2 = _____	30 ÷ 5 = _____
12 ÷ 1 = _____	49 ÷ 7 = _____	21 ÷ 3 = _____	36 ÷ 6 = _____

Select the one best answer for each question. DO NOT use a calculator in completing this packet.

3. Jennie was assigned this problem:

   146
   x25

   She worked out the problem in this way:
   146 x 2 = 292, and 146 x 5 = 730. Then she added 292 + 730. She knew that her answer was wrong because her answer seemed too small. What should she have done differently?

   A. She should have multiplied 146 x 50 instead of 146 x 50.
   B. She should have multiplied 146 x 20 instead of 146 x 2.
   C. She should have multiplied 146 x 200 instead of 146 x 2.
   D. She should have multiplied 140 x 2 instead of 146 x 2.

4. Which of the following is the correct computation of 4,063 x 52? (Do not use a calculator.)

A.	B.	C.	D.
4,063	4,063	4,063	4,063
x 52	x 52	x 52	x 52
8026	8126	8126	8126
200150	20315	2030150	203150
208176	28441	2038276	211276

5. Samantha has to read a book that is 525 pages long. She has 21 days to read the book. How many pages will she need to read each day to finish on time?

   A. 21
   B. 25
   C. 546
   D. 11,025

6. Andrew's family is going on vacation across the United States. They traveled 515 miles every day for 17 days. How many miles did they travel in all?

   A. 532
   B. 4,120
   C. 8,165
   D. 8,755

7. Three classes of 25 students collected 8 cans of soup from each student. The cans were then to be divided between 4 charities. How many cans of soup went to each charity?

   A. 50
   B. 108
   C. 150
   D. 800

8. Brent has a collection of 84 Bobble Head trophies he needs to box up for the move to his new home. He can fit 7 trophies into one box. How many boxes will Brent need?

   A. 10
   B. 12
   C. 13
   D. 21

9. Kayla has 12 cousins. She received $15.00 from each cousin for her birthday. How much money did she receive in all?

   A. $27
   B. $120
   C. $150
   D. $180

10. The 5th grade is going on a trip to the state park. There are 1,012 students going. Each bus can hold 44 students. How many busses will they need? (Do not use a calculator.)

    A. 23
    B. 26
    C. 50
    D. 968

11. Find 1717 ÷ 17. Do not use a calculator.

    A. 11
    B. 101
    C. 107
    D. 1001

12. Solve 4806 ÷ 15 without using a calculator, show your work.

    A. 32
    B. 320 r 6
    C. 320 r 4
    D. 320

13. Solve 647 ÷ 21. Do not use a calculator, show your work.

    A. 3 r 11
    B. 3 r 21
    C. 30 r 8
    D. 30 r 17

14. Use a factor tree to find the prime factorization of the composite number 50. Which answer expresses the number in exponential notation (powers)?

A. A. 2×5^2
B. $2^2 \times 5^2$
C. $2^3 \times 5^3$
D. 10×5

15. Find the prime factorization for 84.

A. 2×42
B. $7 \times 2 \times 2 \times 3$
C. $7 \times 4 \times 3$
D. 7×12

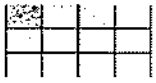
16. Find the prime factorization for the number 48 expressed in exponential notation.

A. $3^1 \times 2^4$
B. 6×8^1
C. $3 \times 2^4 \times 4$
D. $3 \times 2^2 \times 4$

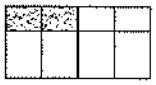
17. Which drawing would you use to find the product of these two fractions?

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

a 

c 

b 

d 

A. Drawing a
B. Drawing b
C. Drawing c
D. Drawing d

18. Solve this equation:

$$\frac{2}{3} \div 3 =$$

A. 2
B. 3
C. 2/6
D. 2/9

19. Solve the following:

$1/3 \div 4 =$

A. 4/3
B. 1/7
C. 1/12
D. 12

20. Solve this equation: $2 \div \frac{1}{4} =$

A. 1/2
B. 2/4
C. 2
D. 8

21. Mrs. Lovell's class is baking cookies. They need 3 3/5 pounds of sugar and 5 1/3 pounds of flour. When they mix the sugar and flour together, how many pounds will they have altogether?

A. 8 4/8 pounds
B. 8 ¾ pounds
C. 9 3/15 pounds
D. 8 14/15 pounds

22. Choose the correct answer for this problem:

$7/9 - 3/8 =$

A. 10/17
B. 29/72
C. 56/27
D. 21/72

23. Choose the correct answer for this problem:

$3/7 + 2/9 =$

A. 5/16
B. 41/63
C. 6/63
D. 18/14

24. Tom had 7/12 of a pizza. His little sister came along and took 2/5 of his pizza away. How much pizza does Tom have left?

A. 11/60
B. 5/7
C. 9/17
D. 5/60

25. Jill has ¾ of a yard of ribbon. Tammy has 4/7 of a yard. How much do they have together?

    A. 7/11 of a yard
    B. 40/28 of a yard
    C. 1/3 of a yard
    D. 37/28 of a yard

26. Paul had 3 7/8 cups of milk. He gave 1 ¾ cups of milk to his cat. How much milk did he have left? Show your work.

    A. 2 cups
    B. 2 1/8 cups
    C. 2 4/4 cups
    D. 1 7/8 cups

27. Nancy ate 1/3 of a pizza and Gabe ate ¼ of the pizza. How much of the whole pizza is left?

    A. 7/12
    B. 5/12
    C. 2/7
    D. 6/7

28. Choose the correct answer for this problem: $5/4 - 3/12 =$

    A. 2/12
    B. 12/12
    C. 9/24
    D. 2/48

29. Patty brought ½ of a cake to class, and Joe brought ¾ of a cake on the same day. How much cake did the class have altogether? Show your work.

    A. ¼ cake
    B. 1 cake
    C. 4/6 cake
    D. 1 ¼ cake

30. Don has $12.32 in his piggy bank. He collects and returns pop cans for $3.70. Approximately how much money does he have together? (Round the answer to the nearest whole dollar.)

    A. $8
    B. $15
    C. $16
    D. $17

31. Michelle earned $5.00 for every hour she babysat. Last week she babysat for 8 hours. She spent $12.00 of the money she earned. Which expression could be used to find how much money she had left?

    A. $5.00 x 8 + $12.00
    B. $5.00 + 8 - $12.00
    C. $5.00 x 8 - $12.00
    D. $5.00 x 8 ÷ $12.00

32. Ten fourth graders will each eat one – fourth of a pizza. How many pizzas need to be ordered for the ten students?

    A. 2 pizzas
    B. 3 pizzas
    C. 4 pizzas
    D. 5 pizzas

33. In the equation 1/3 + x = 5/12, what does x = ?

    A. 4/9
    B. 5/4
    C. 1/12
    D. 3/12

34. Solve for x:
    11/12 – x = ¼

    A. 10/12
    B. 8/12
    C. 10/8
    D. 3/4

35. Solve for x: x + 1/3 = ¾

    A. 2/1
    B. 5/12
    C. 4/7
    D. 13/12

36. Exactly 1/20 of the students in Mr. Nebel's class have a bird. What percentage of his students has a bird?

    A. 0.05%
    B. 1%
    C. 5%
    D. 20%

37. Seven out of ten students in Ms. Allington's class completed the summer math packet. What percentage of students completed the packet?

    A. 7 %
    B. 70 %
    C. .7 %
    D. 14%

38. How much larger is one cubic foot than one cubic inch?

    A. 3 times larger
    B. 15 times larger
    C. 144 times larger
    D. 1728 times larger

39. Which of the following is NOT equivalent?

    A. 1 ton = 2000 pounds
    B. 1 mile = 5200 feet
    C. 9 feet = 3 yards
    D. 60 minutes = 3600 seconds

40. Sharon reads the juice bottle and finds that it contains 1.89 liters of juice. His cup only holds 240 milliliters so he wants to convert 1.89 liters to milliliters. The bottle contains how many milliliters?

    A. 1.89 milliliters
    B. 18.9 milliliters
    C. 189 milliliters
    D. 1890 milliliters

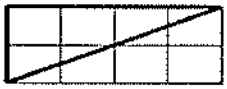
41. Solve the following:

2,749	156	837	368
x 6 8	x 78	x 46	x 20

42. Which is true?

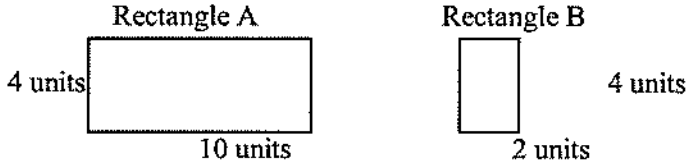
    A. 0.07 is ten times greater than 0.7
    B. 0.070 is ten times greater than 0.007
    C. 0.070 is equal to 0.0070
    D. 0.07 is seven times greater than 0.70

43. Using the rectangle method, what is the area of this triangle?



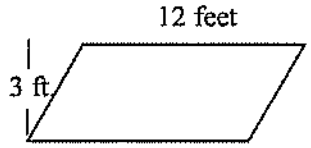
A. 2 square units
B. 4 square units
C. 6 square units
D. 8 square units

44. Which statement is true about the relationship between the areas of these two rectangles?



A. Rectangle A has twice the area of Rectangle B.
B. Rectangle A has 5 times the area of Rectangle B.
C. Rectangle A has one-half the area of Rectangle B.
D. Rectangle A has one-fifth the area of Rectangle B.

45. What is the area of this quadrilateral? Area = height x width



A. 30 feet
B. 30 square feet
C. 36 feet
D. 36 square feet

46. Which of the following is a true statement?

A. 0.003 is 1/3 the value of 0.03
B. 0.003 is 3 times the value of 0.03
C. 0.003 is 1/10 the value of 0.03
D. 0.003 is 10 times the value of 0.03

47. How do the areas of these two figures compare? Select your answer, then explain why you think you answer is correct.

Figure A

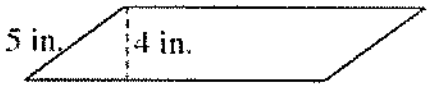
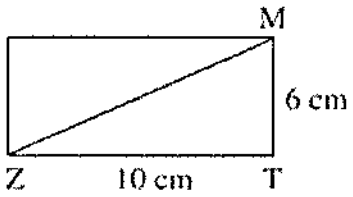


Figure B

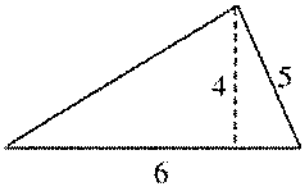
A. The area of Figure A is greater than the area of Figure B.
B. The area of Figure B is greater than the area of Figure A.
C. The area of Figure A is equal to the area of Figure B.
D. The area of Figure B is twice the area of Figure A.

48. Use the diagram to find the area of the triangle ZMT.



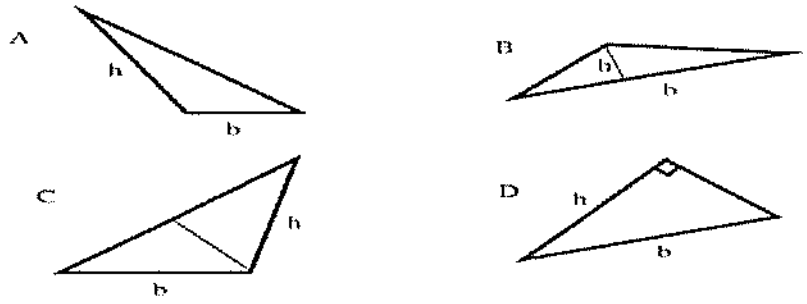
A. 16 square cm
B. 30 square cm
C. 32 square cm
D. 60 square cm

49. What is the area of this triangle?



A. $A = (5x4) \div 2$
B. $A = (5x5) \div 2$
C. $A = (6x5) \div 2$
D. $A = (6x4) \div 2$

50. The area of the triangle can be found using the formula $A = bh \div 2$. Which of the following figures is labeled correctly to apply this formula?



51. Solve each of these without using a calculator:

4 x 6 = _____	8 x 8 = _____	6 x7 = _____
2 x 9 = _____	5 x 5 = _____	9 x 6 = _____
8 x 5 = _____	2 x 2 = _____	3 x 4 = _____
32 ÷ 4 = _____	7 x 7 = _____	56 ÷ 7 = _____
72 ÷ 9 = _____	18 ÷ 2 = _____	3 x 8 = _____
45 ÷ 9 = _____	4 x 4 = _____	8 x 7 = _____
24 ÷ 3 = _____	3 x 3 = _____	3 x 8 = _____

52. Find the sum or difference. Watch the signs.

501	607	850	3,031	953	700	387
-247	-217	+268	-1,441	+529	- 202	±
487						

53. Find the difference 701.02 – 234.12. Show your work

_____