Dear Parents/Guardians:

Math can be seen in the most basic of daily activities. Children problem-solve from the moment they wake to the time they fall asleep. Math is a critical part of your child's education preparing them for the 'real world' outside of school. As we continue to incorporate the new Common Core State Standards this year, it is vital all students coming to 6th grade have their basic multiplication and division facts memorized. Please take any opportunity you can during the summer to review these facts with your children. (specifically 0-12's tables)

The following math packet is required to be completed prior to the start of school on August 27, 2015. Your child must complete this packet and return it to their math teacher no later than **Friday, August 28th**. This packet will be recorded as one of your child's first grades for the marking term.

We also encourage your child to try some math web-sites during the summer. Practice makes perfect!

FASTTMATH.com
https://www.khanacademy.org
Freerice.com (math section)
Ratioblaster.com
Aplusmath.com
AAAmath.com

Thank you for your cooperation in making your child's education a success.

Sincerely,

The Middle School Math Department

name

INVENTORY TEST

Read each question.
Choose the answer.

1. 8 + 6 = ?

A. 14 B. 11 C. 15 D. not here

2. 15 − 7 = ?

A. 6 B. 9 C. 8 D. not here

3. Which number sentence belongs to the same family of facts?

13 − 7 = 6
7 + 6 = 13

A. 6 + 6 = 12 B. 13 − 6 = 7
C. 7 + 7 = 14 D. not here

4. Mark needs 17 can labels to win a prize. He has 9 labels. How many more does he need?

A. 7 B. 8 C. 9 D. not here

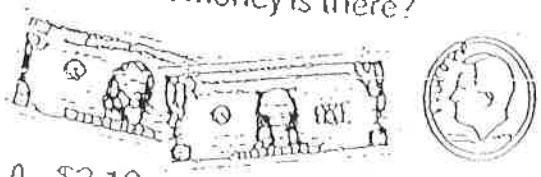
5. Which choice shows the expanded form for 645?

C. 6 + 4 + 5 B. 600 + 40 + 5
C. 60 + 4 + 5 D. not here

6. Which digit is in the thousands place in the number 4,297?

A. 2 B. 4 C. 9 D. not here

7. How much money is there?



A. $2.10 B. $5.10
C. $6.10 D. not here

8. 85
+ 47

A. 137 B. 122
C. 132 D. not here

9. 873
+ 549

A. 1,312 B. 1,422
C. 1,432 D. not here

10. 682
− 467

A. 225 B. 215
C. 205 D. not here

11. 6 × 1 = ?

A. 6 B. 0
C. 1 D. not here

12. 5)35

A. 7 B. 8
C. 6 D. not here

13. 72 ÷ 9 = ?

A. 7 B. 9
C. 8 D. not here

14. There are 63 eggs to color. There are 9 people who want to color them. Each person gets the same number of eggs. How many eggs does each person get?

A. 7 B. 9
C. 8 D. not here

name

INVENTORY TEST

Use the pictograph below to answer questions 15 and 16.

TRAIL USE BY HIKERS Each 🚶 stands for 10 hikers.	
Ridge Trail	🚶🚶🚶🚶
Meadow Trail	🚶🚶🚶
Brook Trail	🚶🚶🚶🚶🚶🚶
Forest Trail	🚶🚶🚶🚶🚶🚶🚶

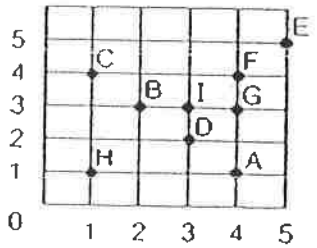
15. How many hikers used the Ridge Trail?

A. 4 B. 20 C. 40 D. not here

16. Which trail was used by the greatest number of hikers?

A. Meadow Trail B. Ridge Trail
C. Forest Trail D. not here

Use the grid below to answer questions 17 and 18.



17. Which ordered pair tells the location of point C?

A. (4, 1) B. (1, 4)
C. (4, 4) D. not here

18. Which letter is at point (2, 3)?

A. D B. B
C. I D. not here

19. $\begin{array}{r} 425 \\ \times \quad 7 \\ \hline \end{array}$

A. 2,845 B. 3,045
C. 2,975 D. not here

20. $3 \times 26 =$?

A. 68 B. 64
C. 84 D. not here

21. $\begin{array}{r} 2{,}463 \\ \times \quad 8 \\ \hline \end{array}$

A. 19,704 B. 18,976
C. 16,284 D. not here

22. Ben and Sally make punch for parties. For every 2 cups of coconut milk, they add 6 cups of pineapple juice. How many cups of pineapple juice are used with 4 cups of coconut milk?

Coconut milk	2	4	6	8
Pineapple juice	6	?	18	24

A. 7 B. 12
C. 4 D. not here

23. $7\overline{)946}$

A. 135 r1 B. 135
C. 106 r4 D. not here

24. $5{,}903 \div 4 =$?

A. 148 r1 B. 1,460 r3
C. 1,475 r3 D. not here

25. $4\overline{)\$6.24}$

A. \$1.66 B. \$1.06
C. \$1.56 D. not here

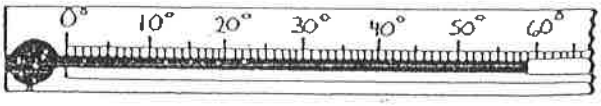
26. $6\overline{)2{,}400}$

A. 4 B. 400
C. 40 D. not here

name

INVENTORY TEST

27. What is the temperature on the thermometer?

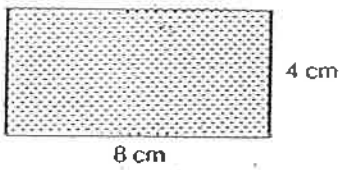


A. 59°F B. 60°F
C. 55°F D. not here

28. 6 ft = ___?___ yd

A. 2 B. 3
C. 1 D. not here

29. What is the area of the figure in square centimeters?



A. 12 sq cm B. 20 sq cm
C. 32 sq cm D. not here

30. Angela buys movie tickets for everyone in the family. Each ticket costs $2.00. What is the total cost? What other information do you need to solve the problem?

A. What time the movie starts
B. How many members are in her family
C. How much each ticket costs
D. not here

31. $\frac{1}{5}$ of 20 = ___?___

A. 5 B. 10
C. 4 D. not here

32. $\frac{26}{4}$ = ___?___

A. $7\frac{1}{2}$ B. $6\frac{1}{4}$
C. 6 D. not here

33. $5\frac{2}{6}$
$+3\frac{3}{6}$

A. $9\frac{4}{6}$ B. $8\frac{5}{6}$
C. $8\frac{3}{6}$ D. not here

34. 47
× 25

A. 1,075 B. 1,045
C. 1,175 D. not here

35. $6.42
× 58

A. $372.36 B. $382.36
C. $348.26 D. not here

36. Every day for 4 weeks, Jason reads for 30 minutes. How many hours does he spend reading in all?

A. 14 B. 2
C. 28 D. not here

37. $61\overline{)372}$

A. 6 r6 B. 5 r7
C. 6 r12 D. not here

38. $55\overline{)441}$

A. 8 r1 B. 7r1
C. 8 D. not here

39. $21\overline{)\$9.66}$

A. $4.60 B. $0.46
C. $46 D. not here

Go on to the next page.

name

INVENTORY TEST

10. Carol bought a case of marbles for $9.84. There are 12 bags in the case. How much does each bag of marbles cost? Which number sentence would you use to solve the problem?

A. $9.84 + 12 = ?

B. $9.84 × 12 = ?

C. $9.84 − 12 = ?

D. not here

1. Which decimal is the same as $17\frac{4}{10}$?

A. 17.10 B. 17.4

C. 17.04 D. not here

2. Which decimal is the same as seven and three-hundredths?

A. 7.300 B. 7.30

C. 7.03 D. not here

3. Which sign is missing?

5.73 ◯ 5.6

A. > B. = C. < D. not here

1. Which sign is missing?

4.9 ◯ 4.98

A. < B. > C. = D. not here

43.92
+ 7.83

A. 50.75 B. 51.75

C. 40.75 D. not here

46. What is the name of the figure?

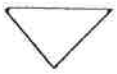
A. octagon

B. hexagon

C. quadrilateral

D. not here

47.



Which figure is congruent to the figure above?

A. 

B. 

C. 

D. not here

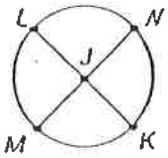
48. What is a radius of the circle?

A. $\overline{LK}$

B. $\overline{NM}$

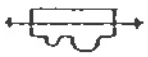
C. $\overline{KJ}$

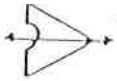
D. not here



49. Which figure shows a line of symmetry?

A. 

B. 

C. 

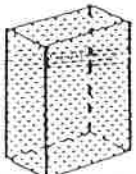
D. not here

50. Which is the name of the figure?

A. pyramid

B. cone

C. cylinder



Sample Item 6-5 (Numerical): Feeding the Horses

Ben's barn is the home for two horses and one pony. The chart below shows how much hay these animals eat each day:

Large horse	**1 ½ bales of hay per day**
Small horse	**1 bale of hay per day**
Pony	**½ a bale of hay per day**

How many bales of hay should Ben purchase for a 30-day supply for his three animals?

If hay costs $1.25 per bale, how much will the 30-day supply cost?

Show or explain how you arrived at your answer.

Sample Item 6-4 (Spatial): The Jewelry Display

A jewelry store displays some of the items it sells in a 3 by 6 rectangular display box. The store owner wants to display several of each of the following items that the store sells:

Gold bracelets (G) that cost $8 each
Silver necklaces (S) that cost $6 each
Copper pins (C) that cost $9 each
Pairs of wire earrings (E) that cost $4 each pair

The display must meet the following conditions:

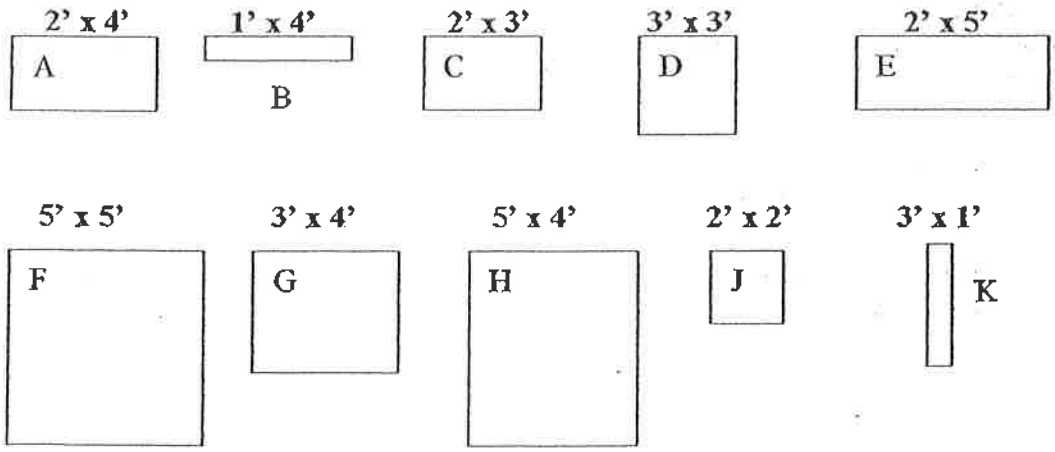
- **There are at least two of each item;**
- **The total cost of the items in the display is more than $120; and**
- **No two display boxes that share a side can have the same item.**

Show how the jewelry can be displayed in the 18 display boxes and show the total cost of the items in the display.

TOTAL COST OF THE ITEMS DISPLAYED _____

Sample Item 6-7 (Spatial): Making a Quilt

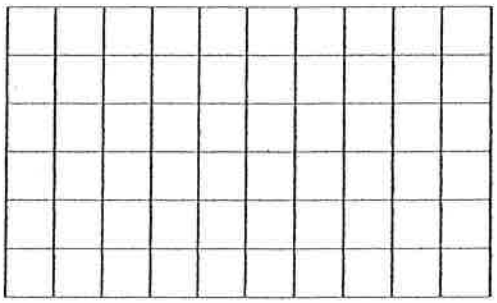
A quilt maker has the 10 scraps of material shown below:



Draw on the grid below to show how the quilt maker could use some of these pieces to complete a section of a quilt that is 6' x 10'. Label each piece with it's letter.

10 feet

6 feet



Sample Item 6-8 (Statistical): A Day at the Science Center

The brochure for the City Science Center describes the following activities at the museum:

Demonstrations:
- **Gravity on the Moon – 15 minutes at 10:00, 11:30 and 1:00**
- **Physics of Light – 20 minutes at 10:30, 12:30 and 1:30**

Lectures:
- **Famous Scientists – 30 minutes at 11:00 and 2:00**
- **The DNA mystery – 15 minutes at 9:30 and 11:00**

Movies:
- **Volcanoes – 45 minutes at 9:15 and 2:15**
- **Whales and Dolphins – 25 minutes at noon and 1:30**

Exhibits:
- **Space Travel**
- **Dinosaurs**
- **Energy**

Use the information above, including taking a 45 minute lunch break, to plan a day at the science center that includes at least 2 hours in the exhibits and at least one demonstration, one lecture and one movie. Complete a schedule that shows your plan.

TIME	ACTIVITY
9:00	Arrive at the science center
	Lunch
3:00	Depart from Science Center