

# SUMMER PACKET

Incoming sixth graders are to complete the attached mathematics packet over the summer.

- Show all work on separate sheets of paper.
- Be sure to number the problems and be as neat as possible.
- Work will be collected and reviewed on the first two days of school and those without it will be at an academic disadvantage. It is counted towards their homework grade for the first quarter.
- It is best to spread the review out over the summer. Do not try to "cram" it all in a day or two before school begins.

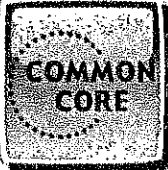
Also, please be sure to practice math facts with your child regularly (addition, subtraction, multiplication, and division.) Fluency with these facts will help them be successful in the coming year.

A great website for practicing their facts is <http://xtramath.org>

Have a great summer!

Mrs. Ryan ([eryan@johnstonschools.org](mailto:eryan@johnstonschools.org))

Mr. Trivison ([jtrivison@johnstonschools.org](mailto:jtrivison@johnstonschools.org))



# Review Test



### Selected Response

1. Al used the expression  $8 + 25 \times 2 - 45$  to find how many CDs he has. How many CDs does he have?

- (A) 3
- (B) 13
- (C) 21
- (D) 103

2. Jamie baked 24 biscuits. Her sister Mia ate 3 biscuits, and her brother David ate 2 cupcakes. Which expression can Jamie use to find how many biscuits are left?

- (A)  $24 + (3 + 2)$
- (B)  $24 - (3 + 2)$
- (C)  $(24 - 3) + 2$
- (D)  $24 - (3 - 2)$

3. What is the unknown number in sequence 2 in the chart?

Sequence Number	1	2	3	5	7
Sequence 1	3	6	9	15	21
Sequence 2	15	30	45	75	?

- (A) 63
- (B) 90
- (C) 105
- (D) 150

4. Patel hopes to be one of the first fans to get into the stadium for the baseball game because the first 30,000 fans will receive a baseball cap. Which shows 30,000 as a whole number multiplied by a power of ten?

- (A)  $3 \times 10^1$
- (B)  $3 \times 10^2$
- (C)  $3 \times 10^3$
- (D)  $3 \times 10^4$

5. The Davis family pays \$200,000 for a new house. They make a down payment that is  $\frac{1}{10}$  of the price of the house. How much is the down payment?

- (A) \$20
- (B) \$200
- (C) \$2,000
- (D) \$20,000

6. Jackie found a rock that has a mass of 78.852 grams. What is the mass of the rock rounded to the nearest tenth?

- (A) 78.85 grams
- (B) 78.9 grams
- (C) 79 grams
- (D) 80 grams

7. A company manufactures 295 toy cars each day. How many toy cars does the company manufacture in 34 days?

- (A) 3,065
- (B) 7,610
- (C) 10,065
- (D) 10,030

8. There are 6 buses transporting students to a baseball game, with 32 students on each bus. Each row at the baseball stadium seats 8 students. If the students fill up all of the rows, how many rows of seats will the students need altogether?

- (A) 22
- (B) 23
- (C) 24
- (D) 1,536

9. The portions of a house that need to be heated can be modeled by one rectangular prism with a length of 45 feet, a width of 20 feet, and a height of 18 feet, and a second rectangular prism with a base area of 350 square feet and a height of 9 feet. What is the total volume?

- (A) 12500 cubic feet
- (B) 16,200 cubic feet
- (C) 16,550 cubic feet
- (D) 19,350 cubic feet

10. Marci mailed 9 letters at the post office. Each letter weighed 3.5 ounces. What was the total weight of the letters?

- (A) 33.5 ounces      (C) 31.5 ounces  
 (B) 32.5 ounces      (D) 27.5 ounces

11. Denise, Keith, and Tim live in the same neighborhood. Denise lives 0.3 mile from Keith. The distance that Tim and Keith live from each other is 0.2 times as great as the distance between Denise and Keith. How far from each other do Tim and Keith live?

- (A) 0.6 mile      (C) 0.1 mile  
 (B) 0.5 mile      (D) 0.06 mile

12. Madison needs to buy enough meat to make 1,000 hamburgers for the company picnic. Each hamburger will weigh 0.25 pound. How many pounds of hamburger meat should Madison buy?

- (A) 2.5 pounds      (C) 250 pounds  
 (B) 25 pounds      (D) 2,500 pounds

**Mini-Tasks**

13. Rayna wrote 260,980 as  $(2 \times 100,000) + (6 \times 10,000) + (9 \times 1,000) + (8 \times 100)$ . What error did Rayna make? Write the correct expanded form.

---

---

---

---

---

---

---

---

14. The highest scores at a gymnastics meet were 9.675, 9.25, 9.325, and 9.5. Write the scores in order from least to greatest.

---

15. Ann and Joe's father donated \$3 for every lap they swam in a swim-a-thon. Ann swam 21 laps, and Joe swam 15 laps. Use the Distributive Property to find the amount of money their father donated.

---

---

---

---

---

16. A grain of sand has a diameter of 0.049 millimeter. Write 0.049 in words.

---

**Performance Task**

17. Jennifer has \$12 to spend on lunch and the roller rink. Admission to the roller rink is \$5.75. Jennifer estimates that she can buy a large drink and a turkey sandwich and still have enough money to get into the rink. Do you agree? Support your answer.

Sandwiches	Drinks
Tuna \$3.95	Small \$1.29
Turkey \$4.85	Medium \$1.59
Grilled Cheese \$3.25	Large \$1.79

---

---

---

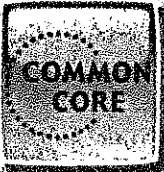
---

---

---

---

---



**Selected Response**

- Charles bought  $\frac{7}{8}$  foot of electrical wire and  $\frac{5}{6}$  foot of copper wire for his science project. What is the least common denominator of the fractions?
 

(A) 14                      (C) 24  
(B) 18                      (D) 48
- Tom jogged  $\frac{3}{5}$  mile on Monday and  $\frac{2}{6}$  mile on Tuesday. How much farther did Tom jog on Monday than on Tuesday?
 

(A)  $\frac{1}{30}$  mile              (C)  $\frac{8}{30}$  mile  
(B)  $\frac{3}{15}$  mile              (D)  $\frac{14}{15}$  mile
- Three fences on a ranch measure  $\frac{15}{16}$  mile,  $\frac{7}{8}$  mile, and  $\frac{7}{16}$  mile. Which is the best estimate of the total length of all three fences?
 

(A)  $1\frac{1}{2}$  miles              (C)  $2\frac{1}{2}$  miles  
(B) 2 miles                  (D) 3 miles
- Lawrence bought  $\frac{2}{3}$  pound of roast beef. He used  $\frac{3}{4}$  of it to make a sandwich. How much roast beef did Lawrence use for his sandwich? You may use a model to help you solve the problem.
 

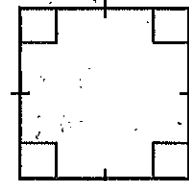
(A)  $\frac{5}{12}$  pound              (C)  $\frac{5}{7}$  pound  
(B)  $\frac{1}{2}$  pound                (D)  $\frac{6}{7}$  pound
- Sarah built a table using 6 pieces of wood that were each  $3\frac{3}{4}$  inches wide. How wide was the table?
 

(A)  $18\frac{1}{8}$  inches              (C)  $21\frac{1}{4}$  inches  
(B)  $18\frac{3}{4}$  inches              (D)  $22\frac{1}{2}$  inches

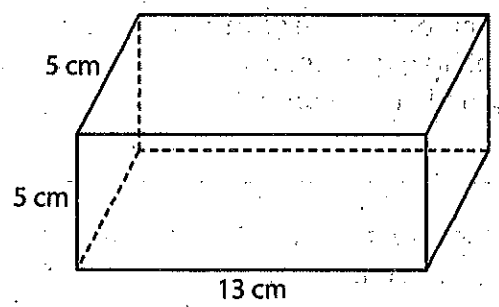
- Vanessa made 6 sandwiches for a party and cut them all into fourths. How many  $\frac{1}{4}$ -sandwich pieces did she have?
 

(A)  $1\frac{1}{2}$                       (C) 4  
(B)  $2\frac{1}{4}$                       (D) 24
- Dr. Watson combines 400 mL of detergent, 800 mL of alcohol, and 1,500 mL of water. How many liters of solution does he have?
 

(A) 2.7 liters                (C) 270 liters  
(B) 27 liters                (D) 2,700 liters
- Give the most descriptive name for the figure.

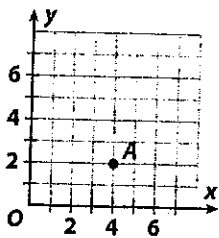


- (A) square                  (C) parallelogram  
(B) rectangle              (D) rhombus
- Find the volume of the rectangular prism.



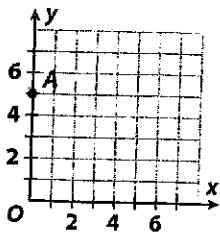
- (A)  $310 \text{ cm}^3$               (C)  $325 \text{ cm}^3$   
(B)  $184 \text{ cm}^3$               (D)  $23 \text{ cm}^3$

10. Which ordered pair describes the location of Point A?



- (A) (0, 2)                      (C) (4, 0)  
 (B) (2, 4)                      (D) (4, 2)

11. Which ordered pair describes the location of Point A?



- (A) (0, 5)                      (C) (5, 5)  
 (B) (5, 0)                      (D) (1, 5)

### Mini-Tasks

12. When Bruce started bowling, he won  $\frac{1}{4}$  of the games he played. Within six months, he was winning  $\frac{7}{16}$  of his games. If he improves at the same rate, what fraction of his games should he expect to win after another six months?

\_\_\_\_\_

13. Gina wants to ship 3 books that weigh  $2\frac{7}{16}$  pounds,  $1\frac{7}{8}$  pounds and  $\frac{1}{2}$  pound. The maximum weight she can ship is 6 pounds. Estimate to see if Gina can ship all 3 books. Explain your answer.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

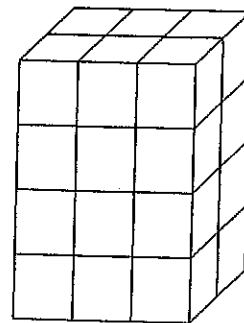
14. How much trail mix will each person get if 5 people share  $\frac{1}{2}$  pound of trail mix?

\_\_\_\_\_

15. Write a story to represent the division problem  $6 \div \frac{1}{3}$ .

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

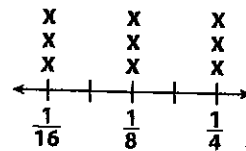
16. What is the volume in cubic centimeters of the solid?



\_\_\_\_\_

### Performance Task

17. Shia measured the thickness of some buttons. She graphed the results in a line plot.



Button thicknesses (in.)

- Part A:** Suppose Shia makes a stack of all the buttons. How tall will the stack be?

\_\_\_\_\_

- Part B:** Suppose Shia wants the stack to be 2 inches high. How many buttons that are  $\frac{1}{16}$  inch thick must be added to the stack of buttons?

\_\_\_\_\_