

Mastery Test Review***Calculator Inactive –Show all your work!***

1. Mark will go to the gym on 15 different days this month.

- A one-day pass to the gym is \$2.35.
- A monthly pass to the gym is \$38.00.

How much money will Mark save by buying a monthly pass?

2. Bethany babysits to earn money.

- She charges \$7.25 to babysit for the first hour.
- She charges \$6.00 for each additional hour.
- Let n equal the number of hours after the first hour.

Write an expression to represent how much Bethany charges.

3. A rectangular room has an area of $43\frac{1}{3}$ square feet. The length of the room is $2\frac{1}{6}$ feet. What is the width, in feet, of the room? Write your answer as a fraction.

4. What is the value of $\frac{2}{8}x^2 + 2$, when $x = 8$

5. To clean a tank, $\frac{3}{5}$ cup of disinfectant is needed for every 3 gallons of water. How many cups of disinfectant are needed for 30 gallons of water?

6. Laura is taking two types of medicine.

- She takes one medicine every 3 hours.
- She takes the other medicine every 2 hours.
- She takes both medicines at 10:00 a.m.

At what time will Laura take both medicines together again?

7. Write an expression to represent the difference between 10 and twice a number x .

8. Peyton can use the equation $y = 9x$ to calculate her pay, where y represents the amount of pay, and x represents the number of hours worked. How many hours did Peyton work if she was paid \$50.75?

9. The data below represents the numbers of books that twelve students read.

3, 5, 8, 9, 10, 13, 15, 19, 20, 22, 31, 33

Draw a box plot that correctly summarizes the data.

10. In the coordinate plane, what is the distance between $(-6, 4)$ and $(-6, -9)$?

11. Ava wants to visit her sister.

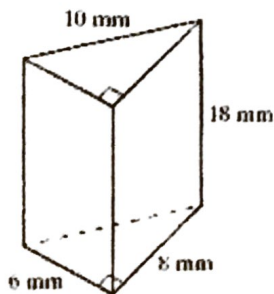
- Her car travels x miles per gallon of gas.
- She will travel 2,000 miles to her sister's house.
- Gas costs \$3.10 per gallon.

Write an expression that shows how much Ava will spend for gas on the trip to her sister's house (you do not have to solve).

12. A rectangular pool has an area of $\frac{2}{5}$ of a square kilometer. The width is $\frac{1}{8}$ of a kilometer. What is the length, in kilometers of the pool? Write your answer as a fraction.

13. A recipe requires $\frac{5}{6}$ lb of potatoes to make 4 servings of soup. Kyle has $1\frac{3}{4}$ lb of potatoes. How many servings of soup can he make? Keep your answer as a fraction.

14. Find the **Surface Area** and **Volume** for the Triangular Prism.



Surface Area =

Volume =