

**MATH 9 - CHAPTER 2 PRETEST**

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**Multiple Choice - PART 1 - NON-CALCULATOR - 10 MINUTES**

Circle the choice that best completes the statement or answers the question.

1. Which of the following represents these rational numbers in ascending order?

$\frac{6}{7}, 0.8, 0.\bar{6}, \frac{13}{14}$

- a.  $0.\bar{6}, 0.8, \frac{6}{7}, \frac{13}{14}$     b.  $\frac{6}{7}, 0.8, 0.\bar{6}, \frac{13}{14}$     c.  $0.\bar{6}, \frac{6}{7}, 0.8, \frac{13}{14}$     d.  $\frac{13}{14}, \frac{6}{7}, 0.8, 0.\bar{6}$

2. Which fraction is equivalent to  $\frac{5}{30}$ ?

- a.  $\frac{6}{10}$     b.  $\frac{1}{5}$     c.  $\frac{1}{6}$     d.  $\frac{2}{15}$

3. Evaluate  $-4.7 \times 3.8$ .

- a. 17.86    b. 8.5    c. -8.5    d. -17.86

4. When evaluating the expression  $(-5.2) + 3.6 \div 0.5$ , what number operation should be completed second?

- a. addition    b. division    c. multiplication    d. subtraction

5. Calculate  $\frac{6}{21} \times \frac{3}{2}$ .

- a.  $\frac{3}{19}$     b.  $\frac{3}{14}$     c.  $\frac{3}{7}$     d.  $\frac{1}{3}$

6. Evaluate  $\frac{4}{9} + \frac{1}{6} \times \frac{2}{3}$ .

- a.  $\frac{5}{9}$     b.  $\frac{11}{18}$     c.  $\frac{7}{9}$     d.  $\frac{5}{6}$

**Multiple Choice - PART 2 - CALCULATOR may be used after 10 minutes**

7. Which of the following sequences represents the numbers below written in descending order?

$\frac{8}{13}, 0.7, 0.\overline{13}, \frac{7}{8}$

- a.  $0.\overline{13}, 0.7, \frac{7}{8}, \frac{8}{13}$     b.  $\frac{8}{13}, \frac{7}{8}, 0.\overline{13}, 0.7$     c.  $\frac{8}{13}, 0.7, \frac{7}{8}, 0.\overline{13}$     d.  $\frac{7}{8}, 0.7, \frac{8}{13}, 0.\overline{13}$

8. Which rational number falls between  $4\frac{5}{9}$  and  $4\frac{5}{11}$ ?

- a. 4.4                      b. 4.5                      c. 4.6                      d. 4.7

9. Evaluate  $(-5.2) + 3.6 \div 0.5$ .

- a. -0.32                      b. -3.2                      c. 2.0                      d. 17.6

10. Evaluate  $\frac{3}{4} - \frac{1}{5} - \frac{3}{10}$ .

- a.  $\frac{1}{5}$                           b.  $\frac{1}{4}$                           c.  $\frac{3}{10}$                           d.  $\frac{7}{20}$

11. Which of these numbers is a perfect square?

- a. 68                          b. 92                          c. 186                          d. 225

12. What is the side length of a square with an area of  $196 \text{ m}^2$ ?

- a. 9 m                          b. 14 m                          c. 49 m                          d. 98 m

13. Evaluate  $\sqrt{2.25}$ .

- a. 1.5                          b. 15                          c. 0.15                          d. 0.015

**Short Answer -SHOW ALL YOUR WORK**

14. Complete the expression with the symbols  $<$ ,  $>$ , or  $=$ .

a)  $\frac{5}{14} \square 0.4$

c)  $0.\overline{6} \square 0.\overline{3} + \frac{1}{3}$

b)  $2\frac{4}{7} \square 2\frac{3}{8}$

d)  $\frac{49}{50} - \frac{7}{10} \square \frac{1}{5} + \frac{2}{25}$

15. Denise evaluated the following expression as shown:

$$(4.5 - 7.8) \times (8.4 \div 2) = 3.3 \times 4.2 \\ = 13.86$$

She has made a mistake. Show all the steps to correctly evaluate the expression and show the correct solution. Explain where Denise went wrong.

16. Evaluate each expression. Write your answer in lowest terms.

a)  $2\frac{1}{4} \times 3\frac{1}{3}$

b)  $-1\frac{3}{4} + 2\frac{1}{6}$

c)  $\frac{2}{5} \div 1\frac{1}{15}$

**Problem - SHOW YOUR WORK**

17. Determine the value of x.

a)  $\frac{1}{3} = \frac{x}{18}$

b)  $\frac{x}{36} = \frac{1}{9}$

c)  $\frac{x}{28} = \frac{4}{7}$

d)  $\frac{1}{5} = \frac{7}{x}$

e)  $\frac{3}{x} = \frac{15}{55}$

f)  $\frac{5}{35} = \frac{x}{7}$

18. Jordan went to a pet shop and bought 8 tetra fish for \$2.00 each, 3 goldfish for \$2.75 each, and 2 angel fish for \$3.75 each. What is the total cost of the fish, before taxes?

work

answer

19. Audrey's mother bought a large rectangular cake for Audrey's 13th birthday party. The cake was cut into 32 equal pieces to be shared among Audrey, her school friends, and her two younger brothers. Audrey ate  $\frac{1}{16}$  of the cake, her friends ate  $\frac{3}{4}$  of cake, and her two brothers together ate  $\frac{1}{3}$  of the remaining pieces of cake. **SHOW YOUR WORK!**

a) How many pieces of cake did Audrey eat?

b) How many pieces of cake did her friends eat?

c) How many pieces of cake did Audrey's brothers eat?