

Grade 9 Mathematics
Unit 1 - Numeracy
Outcomes: A2, A4, A5, A6, B1, B2, B3, B7

Name: _____

Selected Response Circle the correct response.

1. Which is **FALSE**?
 - A. All integers are rational numbers.
 - B. All natural numbers are whole numbers.
 - C. All rational numbers are whole numbers.
 - D. All real numbers are irrational.

2. To which number systems does the number $-\frac{4}{5}$ belong?
 - A. Integers, Natural, Irrational
 - B. Integer, Rational, Real
 - C. Irrational, Real, Whole
 - D. Natural, Rational, Whole

3. Which is an irrational number?
 - A. $-\sqrt{29}$
 - B. -3
 - C. 1.1
 - D. $2\frac{1}{9}$

4. In which set are the numbers arranged from least to greatest?
 - A. $\left\{-1\frac{1}{2}, -\frac{3}{4}, \frac{2}{5}, 0.45, \sqrt{4}\right\}$
 - B. $\left\{-\frac{3}{4}, -1\frac{1}{2}, \frac{2}{5}, 0.45, \sqrt{4}\right\}$
 - C. $\left\{-1\frac{1}{2}, -\frac{3}{4}, 0.45, \frac{2}{5}, \sqrt{4}\right\}$
 - D. $\left\{-\frac{3}{4}, -1\frac{1}{2}, \frac{2}{5}, 0.45, \sqrt{4}\right\}$

5. What is the value of the following expression, rounded to 1 decimal place?
$$0.5(-2.3 + 1.4) - 7.2 \div (-2.4)$$
 - A. -3.2
 - B. -1.7
 - C. 2.6
 - D. 3.7

6. Calculate: $\frac{3}{4} \div \frac{5}{2} \left(\frac{-1}{2}\right)^2$.
 - A. $\frac{3}{40}$
 - B. $\frac{12}{25}$
 - C. $\frac{6}{5}$
 - D. $\frac{5}{3}$

given for partial solutions.

1. Evaluate:

$$\text{A} \quad -1\frac{1}{8} - 2\frac{1}{4} \div -1\frac{1}{2} \times \frac{3}{8}$$

$$\text{B} \quad \frac{7}{10} - \frac{4}{5} \div \left(\frac{2}{3} + \frac{2}{5}\right)$$

$$\text{C} \quad \left(\frac{5}{32}\right) + \frac{1}{4} \left(\frac{1}{3} - \frac{5}{6}\right)^2$$

$$\text{D} \quad -1\frac{1}{3} \div \left(\frac{5}{4} - 3\frac{1}{6}\right) + \frac{-1}{3}$$

2. Small sugar cubes have a mass of $\frac{1}{4}$ g. If there are $3\frac{1}{2}$ g of sugar in a container, how many sugar cubes must be added to increase the mass of the container to $5\frac{1}{4}$ g?

3. Andrew bought 8 packages of balloons, each containing 12 balloons. She used $\frac{5}{6}$ of them at a party. How many balloons does he have left?

4. Teams earn 3 points for each win and 1 point for each tie. Create a matrix to find the total points

for teams X and Y for each year.

Wins			Ties			
Team	2004	2005		Team	2004	2005
X. Oilers	14	6		X. Oilers	5	15
Y. Canadiens	8	11		Y. Canadiens	12	7

5. The table shows the charges, including all fees and taxes, for a round-trip ticket from St. John's to other locations.

St. John's to . . .	Best Rate	Last Minute Booking
Labrador City	\$875	\$1430
St. Anthony	\$350	\$745
Halifax	\$385	\$1085

Due to increased operating expenses, the airline increases the costs by 12%. Create a matrix B to reflect the **NEW CHARGES**.