DUKE + CAMBRIDGE

Name: _____ Date: _____

Mr. Williams Class: _____

Topic: Operations with Rational Numbers

CCSS: **7.NS.A.1a, 7.NS.A.1b, 7.NS.A.1c, 7.NS.A.2a, 7.NS.A.2b, 7.NS.A.2c, and 7.NS.A.2d**

Weekly Quiz

1. Scott correctly writes each fraction below as a decimal. Will the decimal Scott writes for each fraction terminate or repeat?

Choose *Terminates* or *Repeats* for each fraction.

a. $\frac{7}{15}$ ☐ Terminates ☐ Repeats

b. $\frac{3}{15}$ ☐ Terminates ☐ Repeats

c. $\frac{8}{15}$ ☐ Terminates ☐ Repeats

d. $\frac{6}{15}$ ☐ Terminates ☐ Repeats

2. Determine if each expression is equivalent to $-2.7 + (-4.9)$.

Choose *Yes* or *No* for each expression.

a. $-2.7 - 4.9$ ☐ Yes ☐ No

b. $-2.7 + (-0.4 - 4.5)$ ☐ Yes ☐ No

c. $-2.7 + 0.4 - 4.5$ ☐ Yes ☐ No

d. $-2.7 + (-0.7) + (-4.2)$ ☐ Yes ☐ No

e. $-2.7 - 0.7 + 4.2$ ☐ Yes ☐ No

3. The table shows yesterday's change in value of four different stocks.

Stock	Change in Value
A	−$1.25
B	−$0.50
C	−$1.50
D	−$0.25

Which of the following statements are true?

Choose all that apply.

A The change in value of Stock A is 5 times as much as the change in value of Stock D.

B The change in value of Stock B is 4 times as much as the change in value of Stock A.

C The change in value of Stock C is 3 times as much as the change in value of Stock B.

D The change in value of Stock D is 2 times as much as the change in value of Stock B.

4. Mike watches a caterpillar climbing on a tree trunk. He writes the expression $-\frac{5}{8} - \left(-\frac{1}{8} - \frac{1}{2}\right)$ to show the change, in feet, of the caterpillar's height on the tree trunk.

Part A

Which of the following expressions are equivalent to $-\frac{5}{8} - \left(-\frac{1}{8} - \frac{1}{2}\right)$?

Choose all that apply.

A $-\frac{5}{8} + \left(\frac{1}{8} + \frac{1}{2}\right)$

B $-\frac{5}{8} + \frac{5}{8}$

C $-\frac{5}{8} - \left(\frac{1}{8} + \frac{1}{2}\right)$

D $-\frac{5}{8} - \left(-\frac{1}{8} + \left(-\frac{1}{2}\right)\right)$

E $-\frac{5}{8} + \left(\frac{1}{8} - \frac{1}{2}\right)$

F $-\frac{5}{8} - \frac{1}{8} - \frac{1}{2}$

Part B

What is the overall change in the caterpillar's height on the tree trunk, in feet?

Show your work.

Answer: _____ feet

5. A whale descends 382.5 feet in 45 seconds.

Part A

Write an expression that can be used to find the average elevation change of the whale during its descent, in feet per second.

Answer: _____

Part B

The whale's elevation changes at a constant rate. What is the elevation change of the whale after 6 seconds?

Show your work.

Answer: _____ feet