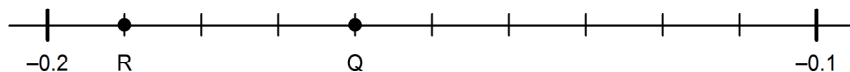


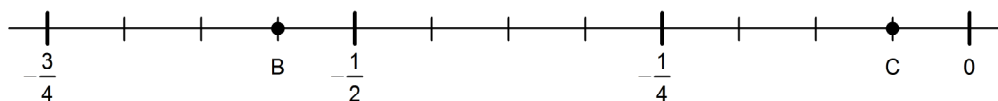
# MATH 9 - Final Review - Unit 3

## PART I - Non-Calculator

1. Write the rational number represented by each letter on the number line, as a decimal.



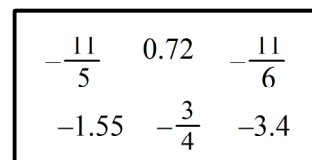
2. Write the rational number represented by each letter on the number line, as a fraction.



3. Write 3 rational numbers between  $-2.3$  and  $-2.4$ .

4. Which rational number is greater?  
 $3.3$ ,  $3.\bar{3}$

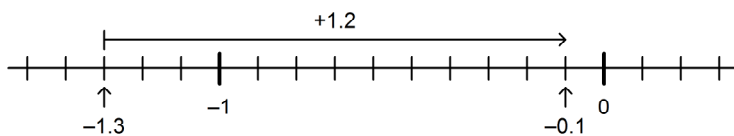
5. a) Which of the numbers in the box below are less than  $-1$ ?  
 b) Which numbers are greater than  $-2$ ?



6. Order these numbers from least to greatest.

$$-\frac{3}{4}, -\frac{7}{9}, -\frac{5}{6}, -\frac{2}{3}$$

7. Write the addition statement that this number line represents.



8. Determine this sum.  
 $-4.1 + 5.6$

9. Determine this sum.  
 $-5.23 + (-2.72)$

10. Determine this sum.

$$-\frac{3}{2} + \frac{2}{5}$$

11. Determine this sum.

$$-4\frac{3}{4} + \left(-1\frac{3}{5}\right)$$

12. Determine this difference.

$$\frac{6}{5} - \left(-\frac{7}{5}\right)$$

13. Determine this difference.

$$-4.5 - 10.1$$

14. Determine this difference.

$$6\frac{1}{2} - \left(-5\frac{1}{3}\right)$$

15. Evaluate this expression.

$$\frac{11}{2} - \left(-\frac{7}{5}\right) + \left(-\frac{13}{4}\right)$$

16. Determine this product.

$$(-8) \times 3.3$$

17. Determine this product.

$$4 \times \left(-\frac{7}{3}\right)$$

18. Determine this product.

$$\left(\frac{10}{7}\right)\left(-\frac{4}{3}\right)$$

19. Determine this product.

$$\left(3\frac{1}{2}\right)\left(-3\frac{2}{3}\right)$$

20. Determine this quotient.

$$\left(-\frac{4}{3}\right) \div \left(-\frac{5}{3}\right)$$

21. Determine this quotient.

$$\frac{8}{63} \div \frac{4}{7}$$

22. Determine this quotient.

$$\left(-8\frac{2}{5}\right) \div \left(-1\frac{4}{5}\right)$$

23. Evaluate.

$$\frac{2}{3} - \left(-\frac{7}{12}\right)\left(-\frac{4}{21}\right)$$

24. Evaluate.

$$1\frac{7}{8} \times 2\frac{2}{5} - 1\frac{3}{4}$$

25. You may use a Calculator for #25, 26 and 27.

$$25.4 - 6.5 \times (8.7 - 4.7)$$

26. Evaluate.

$$\frac{0.6 \times 2.7}{0.162 \div 0.3}$$

27. Evaluate. Give your answer to the nearest hundredth.

$$\frac{3.6 - 3.9 \div (-2.6)}{(-5.2 + 1.5)^2}$$

**MATH 9 - Final Review - Unit 3  
Answer Section****SHORT ANSWER**

1. ANS:

Q:  $-0.16$ , R:  $-0.19$ 

DIF: Easy

2. ANS:

B:  $-\frac{9}{16}$ , C:  $-\frac{1}{16}$ 

DIF: Easy

3. ANS:

Answers will vary. For example:  $-2.34$ ,  $-2.36$ , and  $-2.365$ 

DIF: Moderate

4. ANS:

 $3.\bar{3}$ 

DIF: Moderate

5. ANS:

a)  $-3.4$ ,  $-\frac{11}{5}$ ,  $-1.55$ ,  $-\frac{11}{6}$ b)  $-1.55$ ,  $-\frac{11}{6}$ ,  $-\frac{3}{4}$ ,  $0.72$ 

DIF: Moderate

6. ANS:

 $-\frac{5}{6}$ ,  $-\frac{7}{9}$ ,  $-\frac{3}{4}$ ,  $-\frac{2}{3}$ 

DIF: Difficult

7. ANS:

 $-1.3 + 1.2 = -0.1$ 

DIF: Easy

8. ANS:

1.5

DIF: Moderate

9. ANS:  
-7.95

DIF: Moderate

10. ANS:  
 $-\frac{11}{10}$

DIF: Moderate

11. ANS:  
 $-6\frac{7}{20}$

DIF: Moderate

12. ANS:  
 $\frac{13}{5}$

DIF: Easy

13. ANS:  
-14.6

DIF: Easy

14. ANS:  
 $11\frac{5}{6}$

DIF: Moderate

15. ANS:  
 $\frac{73}{20}$

DIF: Difficult

16. ANS:  
-26.4

DIF: Easy

17. ANS:  
 $-\frac{28}{3}$

DIF: Easy

18. ANS:

$$-\frac{40}{21}$$

DIF: Moderate

19. ANS:

$$-12\frac{5}{6}$$

DIF: Moderate

20. ANS:

$$\frac{4}{5}$$

DIF: Easy

21. ANS:

$$\frac{2}{9}$$

DIF: Moderate

22. ANS:

$$4\frac{2}{3}$$

DIF: Moderate

23. ANS:

$$\frac{5}{9}$$

DIF: Easy

24. ANS:

$$2\frac{3}{4}$$

DIF: Easy

25. ANS:

$$-0.6$$

DIF: Moderate

26. ANS:

$$3$$

DIF: Moderate

27. ANS:

$$\frac{3.6 - 3.9 \div (-2.6)}{(-5.2 + 1.5)^2}$$

$$= \frac{3.6 + 1.5}{(-3.7)^2}$$

$$= \frac{5.1}{13.69}$$

$$\doteq 0.37$$

DIF: Moderate