**![C:\Users\will.glenwright\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\BOJ1Z6K8\MC900365896[1].wmf]()Math 9 – Unit 1 – Number Theory Practice Test**

**Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

\_\_\_\_ 1. Order the numbers from least to greatest.

0.4, , 0.44

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 0.44, , 0.4 | c. | , 0.44, 0.4 |
| b. | 0.4, , 0.44 | d. | 0.4, 44,  |

\_\_\_\_ 2. Which rational number is represented by the letter A on the number line?



|  |  |  |  |
| --- | --- | --- | --- |
| a. | –0.5 | c. | –5 |
| b. | –0.8 | d. |  |

\_\_\_\_ 3. Write the addition statement that this number line represents.



|  |  |  |  |
| --- | --- | --- | --- |
| a. |  | c. |  |
| b. |  | d. |  |

\_\_\_\_ 4. Determine this sum.



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 5. Which expression has the least sum?

i) 

ii) 

iii) 

iv) 

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | iv | b. | i | c. | iii | d. | ii |

\_\_\_\_ 6. Yesterday, the temperature of a freezer was . When the technician checked the freezer today, its temperature had decreased by . Determine the temperature of the freezer today.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 7. Determine this difference.

 – 

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 8. Determine this product.



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 9. Evaluate.



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 10. A student has $1298 in her savings account. She withdraws $95 each week.

A formula for calculating the amount of money remaining in her account is **, where *T* dollars is the original amount and *w* is the number of weeks she has been withdrawing money.

Determine the amount of money remaining in her account after 13 weeks.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | $63 | b. | $1235 | c. | $1216 | d. | $1190 |

**Short Answer**

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



 B = \_\_\_\_\_\_\_\_ C = \_\_\_\_\_\_\_\_\_



 12. Determine three rational numbers between -3.4 and -3.5 by showing them on the number line below.

**Open Response –** Show all work for full value.

13.  14.  15. 

16)   () 17)  18)

**Word Problems – Show all work and write a sentence for full marks.**

 19. On the weekend, Mr. Glenwright climbed Mount Carleton, which has a height of 850m above sea level, then canoed the Nashwaak river, 26m below sea level.

a) Calculate the difference between the altitude of the mountain and the river.

b) Leaving the river, Mr. Glenwright climbs up 12m to get to his car. What is his new altitude?

c) If it was 4oC at the top of Mount Carlton and the temperature rises 2oC for every 72m drop in elevation, what is the temperature at Mr. G’s car?

20. After canoeing, Mr. Glenwright went skydiving. As he jumps out of the plane at an altitude of 12 000m, he free falls at a rate of 45m per second.

a) What is his altitude after 45 seconds?

b) How many **minutes** does it take him to drop 5400m?

**Answer Key**

**Multiple choice**

**1.**

**2.**

**3.**

**4.**

**5.**

**6.**

**7.**

**8.**

**9.**

**10.**