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| **THE NUMBER SYSTEM**  **STUDY GUIDE, Page 1** |

1. **The length of the shaded rectangle represents 2 1/2 units.**

**Part A: Drag enough 1/4 units into the empty rectangle to model 2 1/2 divided by 1/4**

**Part B: Drag a number into the box to show the quotient of 2 1/2 ÷ 1/4.**

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| **1/4**  **0**  **1**  **2**  **3**  **4**  **5**  **6**  **7**  **8**  **9** | **Part A:**   |  | | --- | |  |  |  | | --- | |  | |
| **Part B:**   |  | | --- | |  |   **2 1/2 ÷ 1/4 =** |

1. **What fraction makes this equation true?**

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**2 ÷ \_\_\_ = 2**

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**3 3**

**Drag a number into each box to create a fraction that will make the equation true?**

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| **THE NUMBER SYSTEM STUDY GUIDE, Page 2** |

1. **What number makes this equation true?**

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**2 ÷ \_\_\_ = 14**

**3 7 21**

**Drag a number to the box to create a fraction that will make this equation true.**

**4. Which expression is equivalent to 1/4 ÷ 1/8 ?**

**a) 1/4  1/8 c) 4/1  8/1**

**b) 1/4  8/1 d) 4/1  1/8**

**5. The equation has an unknown number.**

**\_\_\_ ÷ 5 = 4**

**3 6 5**

**Enter a number that makes this equation true.**

1. **Enter the quotient of 2/3 and 3/4 in fraction form.**

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| **THE NUMBER SYSTEM STUDY GUIDE, Page 3** |

1. **The Equation shown has an unknown number?**

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**÷ 2 = 3**

**3 4**

**Enter a fraction that makes this equation true.**

1. **Enter the quotient of 2 2/3 and 3/4 in fraction form.**
2. **A recipe requires ¾ cup of nuts for 1 batch of muffins.**

**Enter the number of batches of muffins that can be made using 7 1/2 cups of nuts.**

1. **Divide. 16,536 ÷ 24**

**Enter the exact quotient.**

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| **THE NUMBER SYSTEM STUDY GUIDE, Page 4** |

1. **Divide. 12. Add.**

**Enter the exact quotient. Enter the exact sum.**

**35, 702 ÷ 25 34.381 + 8.2**

1. **Subtract. 14. Multiply**

**Enter the exact difference. Enter the exact product.**

**48.235 – 29.67 8.296  0.8**

1. **Use the fact that 12  218 = 2616**

**Enter the exact product of 1.2  2.18.**

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| **THE NUMBER SYSTEM STUDY GUIDE, Page 5** |

**16. Divide. 0.912 ÷ 0.24**

**Enter the exact quotient.**

1. **Consider the equation showing the distributive property.**

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**24 + 30 = 6(4 + )**

**Enter the unknown value that would make the equation true.**

**18. Enter the greatest common factor of 24 and 36.**

**19. Enter the least common multiple of 6 and 8.**

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| **THE NUMBER SYSTEM STUDY GUIDE, Page 6** |

**20. A Fahrenheit thermometer shows that the temperature is 15 degrees below zero.**

**Enter the integer that represents the temperature in degrees Fahrenheit.**

**21. -3°C > -7°C, where as C represents Celsius. Write a statement about the above temperatures.**

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**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**22. Roman civilization began in 509 B.C. and ended in 476 A.D. How long did the Roman civilization last?**

**23. A submarine was situated 450 feet below sea level. If it descends 300 feet, what is its new position in feet?**

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| **THE NUMBER SYSTEM STUDY GUIDE, Page 7** |

**24. In the Sahara Desert one day it was 136°F, and in the Gobi Desert a temperature of -50°F was recorded. What is the difference between these two temperatures?**

**25. What is the absolute value of the integer -18?**

**a) -18 c) 18**

**b) 1 and 8 d) 0**

**26. Select all ordered pairs that are located in the second quadrant of the coordinate grid.**

**a) (-3, 4) c) (-5, 4)**

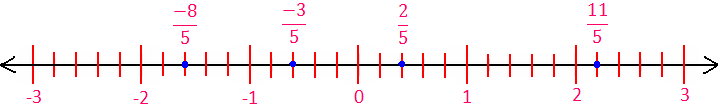
**b) (3, -8) d) (-5, -8)**

**27. Identify the points on the number line below:**

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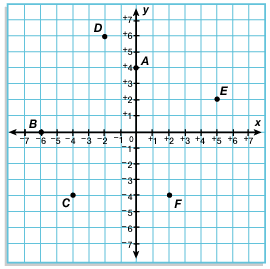
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| **THE NUMBER SYSTEM STUDY GUIDE, Page 8** |

**28. Identify the points on the number line below from greatest to least:**

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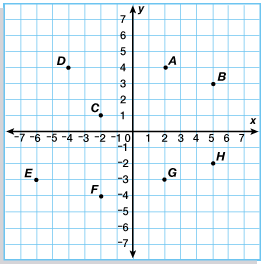
**Which number on the number line has the greatest absolute value?**

**29. Identify the ordered pairs in the coordinate grid.**

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| **THE NUMBER SYSTEM STUDY GUIDE, Page 9** |

**30. In what quadrant would we find the ordered pair, (-4, 4)?**

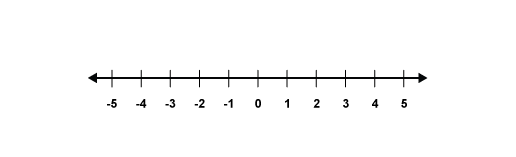
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**a) quadrant I c) quadrant III**

**b) quadrant II d) quadrant IV**

**31. Place the values below on the number line in the correct positions:**

**1/2, -4, -2 3/4, 3, 1 1/4**

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| **THE NUMBER SYSTEM STUDY GUIDE, Page 10** |

**32. Mom mixed 2 1/2 pounds of apples, 1 1/8 pounds of grapes and 1 1/4 pounds of pears for a salad. After setting aside 1 1/2 pounds of salad for today, she divided the rest of the salad equally into 3 containers. What is the weight of the salad in one container?**

**33.** **Jill bought items costing $13.45, $1.99, $6.59, and $12.98. She used a coupon worth 20% off. The tax on all the items was .09¢. If Jill had $50.00 when she went into the store, how much did she have when she left? And she gives the remaining money to 2 charities. How much money does she give to each charity?**