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| **Number Theory** | |
| **1.** **Circle** whether the following statements are true or false.  a)  True False  b)  True False  c)  True False  d)  True False | **4** |
| **2.** Circle the correct answer for the following:  a) Is 9372 divisible by 2?  Yes No  b) Is 238 divisible by 5?  Yes No  c) Is 72124 divisible by 4?  Yes No  d) Is 8293 divisible by 3?  Yes No | **4** |
| **3.** Write the following in index notation:  = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **1** |
| **4.** Write the following in expanded form:  = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **1** |
| **5.** Evaluate the following:  a) =  b) =  c) =  **6.** Calculate , writing the remainder as a fraction. | **1**  **1**  **2**  **2** |
| **7.** Evaluate:  a)  b)  c) | **1**  **1**  **1** |
| **8.** Between which two whole numbers does lie? | **1** |
| **9.** Circle the prime numbers:  **1, 2, 6, 8, 11, 15, 17** | **2** |
| **10.** List all the factors of 18:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **2** |
| **11.** Explain why the number 4 is not a prime number**.** | **1** |
| **12.** What is the highest common factor (HCF) of18 and 24? | **1** |
| **13.** What is the lowest common multiple (LCM) of15 and 6? | **1** |
| **14.a)** Complete the following factor tree:  196  2  **b)** Write 196 as a product of its prime factors, in index notation.  **c)** Use your factor tree to evaluate  **15.** Using the same method as **Question 14** calculate | **2**  **2**  **1**  **2** |
| **Angle Relationships** | |
| **1.** Name the angle shown:  **a)**    b) | **1**  **1** |
| **2.** Classify all the angles shown in this diagram as acute, obtuse or reflex:    **Acute: \_\_,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Obtuse: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Reflex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **3** |
| **3.** Use a protractor to measure the following angles:  **a)**    **b)**    **c)** | **3** |
| **4.** Use a protractor to construct the following angles. Show the angle clearly on your diagram.  **a)**  **b)** | **2** |
| **5. a)** The complement of 650 is  **\_\_\_\_\_\_\_\_\_\_\_\_**  **b)** The supplement of 150 is  **\_\_\_\_\_\_\_\_\_\_** | **2** |
| **6.** Find the value of the unknown angles in the following diagrams:  **a)**    **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **b)**    **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **c)**    **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **d)**    **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **1**  **1**  **1**  **1** |
| **7.** In this diagram, list the pairs of vertically opposite angles:    **\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_** | **1** |
| **8.** In the following diagram:    The angle alternate to is \_\_\_\_\_\_\_\_  The angle corresponding to is \_\_\_\_\_  The angle co-interior to is \_\_\_\_\_\_\_\_ | **1**  **1**  **1** |
| **9.** Find the value of the unknown in the following diagrams and give one of the following reasons for each: *corresponding, alternate, co-interior*  **a)**    **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Reason: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **b)**    **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Reason: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **c)**    **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Reason: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **1**  **1**  **1** |
| **10.** Find the values of the unknowns in this diagram: | **3** |