**Unit 3 Math 7+ Review Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Review your notes before you complete each of the sections.**

**Part 1: Solving one-step equations.**

**7m = -49 48 + p = -72 = -10**

**Part 2: Solving two-step equations.**

**-8 + 6f = -5 + 5 = -7 – 5 = -11**

-0.8m - 29.17 = -16.43 x - = -

**Part 3: Solving multi-step equations.**

**8b – 11 – b = 24 4(6c – 3.5) = 15 ( 10y – 18) =-12**

**Part 4: Solving equations with variables on both sides.**

**4g + 21 = 11g -9c – 16 = c + 34 f + 21 = f + 18**

**Part 5: Convert a repeating decimal to a fraction.**

**2.56565656…… 0.013131313…..**

**Part 6: Simplifying with square and cube roots.**

**= = =**

**Part 7: Solving word problems**

**Directions: Solve the following word problems by identifying a variable and writing an equation.**

1. **2 times the sum of a number and 12 is equal to 42. What is the number?**

**Variable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Solution \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **Jimmy has $17 more than Phil. Their friend Bob has $21 less than Phil. The total amount of money they have is $176. How much does each boy have?**

**Variable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Solution \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **3 consecutive integers have a sum of 57. What are the 3 integers?**

**Variable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Solution \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **During the football season, Jason scored 7 touchdowns. He scored 2 fewer touchdowns than three times the number Kevin did. How many touchdowns did Kevin score?**

**Variable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Solution \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **John leaves home driving at a speed of 40 mph. His brother Bill leaves home half an hour later. He drives at a steady rate of 50 mph. How long after John leaves home will Bill catch up?**

**Variable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Solution \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **The perimeter of a rectangle is 72. If the length is 4 less than 3 times the width, what is the length of the rectangle?**

**Variable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Solution \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Part 8: Simplifying and estimating Roots

Directions: Complete the table below.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Simplified form | Between what 2 integers does the value fall between? | Estimated to nearest tenth |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Part 9: Types of Numbers

Complete the table: Place a check in the box if the number can be classified as the given type of number.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Whole | Irrational | Rational | Integer | Natural |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| **2** |  |  |  |  |  |
|  |  |  |  |  |  |

**Part 10: Solving Equations with Roots**

**Directions: Solve the following equations.**

= 8 −31 = −4x2 + 5 x3 + 9 = −18