**WORD PROBLEMS**

**Grade 7 – Week #6**

**The Number System – Skill Practice and Problem Solving**

|  |  |
| --- | --- |
| 1. **A submarine is 50 metres below sea level. It goes up 15 metres, then goes down 40 metres. What is the submarines new position relative to sea level?** *(Integers)*
 | 1. **North West Middle School is holding a fundraiser. The 6th graders have raised 63% of their goal. The 7th and 8th graders have raised 0.61 and** $\frac{2}{3}$ **of their goal amounts, respectively. List the classes in order, by percent from least to greatest of their goal amounts.** *(Comparing fractions-decimal-percent)*
 |
| 1. **The table shows amounts of money that Kallie deposited and withdrew from her bank account. What is the overall amount of deposit or withdrawal?** *(Integers)*
 | 1. **Sandy has $143 in the bank. She withdraws $40. Then she deposits $92. Write an addition expression to represent the situation. Then find the sum.**
 |
| 1. **The screen on Cade’s old phone is 3.15 cm long. What mixed number represents the length of the phone screen?** *(Decimal = Fraction)*
 | 1. **A hiker descends from a mountain peak. If the hiker descends at a rate of 700 feet every half hour, what is the hiker’s elevation relative to the peak after 3 hours?**

*(2 step - Multiplication)* |
| 1. **Solve:**

**5**$\frac{1}{6}$ **- 1**$\frac{1}{3}$ | **8. The lowest temperature ever recorded is -89˚C. The highest temperature is 56.7˚C. What is the difference between the highest and lowest recorded temperatures?** *(Integers)* |

**WORD PROBLEMS**

**Grade 7 – Week #6**

**Ratios & Proportional Relationships – Skill Practice and Problem Solving**

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| 1. **Andy went to get a haircut that cost $40. He wanted to tip the hair stylist 20% and tax is 6.25%. How much did he spend in total for the haircut?**

*Step 1 – tip on cost before tax**Step 2 – Tax on cost of haircut**Step 3 – Add cost, tip & tax* | 1. **At 3:30pm, the water level in a pool is 14 inches. At 4:00pm, the water level is 20 inches. At 5:00pm, the water level is 32 inches. What is the constant rate of change?** *(How much change each hour?)*
 |
| 1. **Blake burns 4.5 calories in 2/3 of a minute riding his bike. What is Blake’s unit rate per minute?**

*Step 1 – find out how many seconds 2/3 of a minute is**Step 2 – find ratio for 10 seconds* *Step 3 – find ratio for 60 seconds* | 1. **Timmy can buy 2 pounds of bananas for $7. How much does 1 pound cost?** *(Unit Rate)*
 |
| 1. **A skydiver is falling at a rate at about 142 feet per second. How many feet per minute is she falling?** *(60 seconds in a minute)*
 | 1. **The price to download a digital book is $6.00 and the sales tax is 5%. What is the total cost to download a book plus tax?**

*(Tax is added on to the price)* |
| 1. **The regular price for a sweater is $48. The store is having a buy one get one ½ off sale. If you buy 2 sweaters for that deal, what is the final price after 15% tax?**

*Step 1 – find price for both sweaters with BOGO**Step 2 – add the tax to the price from Step 1* | 1. **The Murray family paid $312 for their family of 12 to get into the exhibition. How much was each ticket?** *(Unit Rate)*
 |

**WORD PROBLEMS**

**Grade 7 – Week #6**

**Expressions & Equations – Skill Practice and Problem Solving**

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| --- | --- |
| 1. **Simplify**

*(Collect like terms)***6n – 13 – 4n + 6** | 1. **The expressions in the figure below represent the side lengths of the rectangle in feet. What is the simplified expression for the perimeter of this rectangle?** *(Collect like terms/Perimeter is the distance around)*

 |
| 1. **Grace orders 3 chili hot dogs and a large bowl of cheese fries from a food truck. All taxes have been added into the prices. The cheese fries cost $5.50. The total cost of the food is $16. What is the price of one chili hot dog?** *(d=cost of one chili dog)*
 | 1. **Solve** *(Distributive Property)*

*Step 1 – Multiply everything in bracket by 5**Step 2 – Solve for t* **5(t – 1.25) = 8.75** |
| 1. **Max needs $115 for a new cell phone. He has already saved $45. He earns $7 an hour at his job. Write and solve an equation to find how many hours he needs to work to buy the phone.** *(h =# of hours worked)*
 | 1. **Peter stacks some photo albums in a storage crate that weighs 5 pounds. Each album weigh 1** $\frac{3}{8}$ **pounds. The total weight of the crate with all the albums in it is 60 pounds. Write and solve an equation to find *n,* the number of photo albums in the crate.** *(The weight of the crate plus the weight of the albums is 60) \*Fractions can be decimals too\**
 |
| 1. **Steven receives a $70 gift card to use at a clothing store. He buys a pair of jeans for $36 and 8 pairs of socks! He does not use the entire amount of the gift card. Write and solve an inequality to find *s,* the price of each pair of socks.** *(Inequalities do not use* ***=*** *; they use* ***< >****instead because answers may vary)*
 | 1. **Solve the inequality**

 **9r + 3 < -15** |

**WORD PROBLEMS**

**Grade 7 – Week #6**

**Statistics & Probability – Skill Practice and Problem Solving**

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| --- | --- |
| 1. **Cara buys a bag of 7 500 assorted beads. A random sample of 150 beads contains 17 gold beads. Predict the number of gold beads in the bag of assorted beads that Cara bought.**

*Step 1 – ratio* *Step 2 – equivalent ratio* | 1. **A survey shows that 60% of students would select bumper cars rather than roller coasters as their favourite ride at the exhibition. Out of 4 000 students, predict how many students would select roller coasters as their favourite ride.** *(Percent)*
 |
| 1. **Ten cards numbered 1 through 10 are mixed together and then one card is drawn. Find the probability of pulling a number greater than 7.**
 | 1. **A box contains 10 red pens and 10 black pens. Is it more likely that you will pick a red pen or a black pen out of the box?**
 |
| 1. **Find the mean** *(average)***, median** *(middle)* **and mode**  *(repeat)* **of following heights of students:**

**181.5, 126.8, 141.7, 151.2, 140.9, 126.3, 139.4, 137.4, 122.9***(Remember to put in order!)* | 1. **Alicia flips a coin 60 times. How many times would you expect it to land heads up?**
 |
| 1. **A spinner is divided into 6 equal sections as shown. Find the probability of the arrow stopping on number 2.**

 | 1. **The results of a survey are shown in the table. Based on this data, how many of the 600 students at the school would choose baseball?** *(Equivalent Fraction)*

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**WORD PROBLEMS**

**Grade 7 – Week # 6**

**Geometry – Skill Practice and Problem Solving**

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| 1. **Write and solve an equation to find the value of *x.*** *(Angles in a triangle = 180˚)*

 | 1. **Write and solve an equation to find the value of *x.*** *(Straight angle = 180˚)*

  |
| 1. **Find the measurements of the numbered angles.** *(Opposite angles are =)*
 | 1. **Container A is 13 inches by 19 inches by 25 inches. Container B is 13 inches by 13 inches by 31 inches. In cubic inches, how much greater is volume of Container A?** *(V= l* **x**  *w* **x** *h)*
 |
| 1. **Holly runs 3.5 laps around the circular track in the gym. The track has a diameter of 0.5 of a mile. About how far does Holly run? ( C=πd)** *(Find 1 lap distance and then the rest)*
 | 1. **Find the circumference** *(C=πd)* **and area** *(A=πr2***) of the circle below.**

 |
| 1. **Find the value of x**

 | 1. **Find the volume of the right rectangular prism below.** *(V = l* **x** *w* **x** *h )*

 *2*  |

**Word Problems Week #6 – Student Answer Sheet**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **The Number System** | **Ratios & Propotional Relationships** | **Expressions & Equations** | **Statistics & Probability** | **Geometry** |
| **1** |  |  |  |  |  |
| **2** |  |  |  |  |  |
| **3** |  |  |  |  |  |
| **4** |  |  |  |  |  |
| **5** |  |  |  |  |  |
| **6** |  |  |  |  |  |
| **7** |  |  |  |  |  |
| **8** |  |  |  |  |  |