

## 2010 Summer Math Reinforcement Program

### Theme: Maintain To Retain & Retain To Maintain Six-Week Program

#### Instructions Requirements for all Incoming and Promoted 9<sup>th</sup> Graders:

#### SHOW ALL WORK!!!!!!!!!!

Students are to perform and complete all question and problems assigned for the week.

Record all work on loose leaf paper and place your previous math course heading on each page.

Then place the pages (in page order) in a three-prong pocket folder.

Record **Summer Math Reinforcement Program** and your name (underneath title) on the front of the folder.

Students will compose a two paragraph essay commenting on the success and difficulty of the packet.

Students will design 2 application questions (word problems) with detailed solutions based the packet.

Students will turn in folders to your math teacher for the new school year.

**Attention:** Folders that are orderly and thorough may be eligible for a 15% credit toward your first progress report grade. If having difficulty with content matter, a **professional student** should and will seek assistance.

#### Suggested pacing of completing problems:

Week 1: Mixed Review 1 – 8, Decimals (Word Problems) 1 & 2

Week 2: Mixed Review 9 – 18, Decimals (Word Problems) 3 & 4

Week 3: Mixed Review 22 - 28, Decimals (Word Problems) 5 & 6

Week 4: Mixed Review 29 – 35, Fractions (Word Problems) 1 & 2

Week 5: Mixed Review 36 – 40, Fractions (Word Problems) 3, 4, & 5

Week 1: Fractions 1 - 9, Fractions (Word Problems) 6

Name \_\_\_\_\_

Date \_\_\_\_\_  
(Answer ID # 0608509)

## Mixed Review

Complete.

1. $\begin{array}{r} 0.5 \\ \times 0.7 \\ \hline \end{array}$	2. $\begin{array}{r} 0.3 \\ \times 0.5 \\ \hline \end{array}$	3. $\begin{array}{r} 0.3 \\ \times 0.4 \\ \hline \end{array}$	4. $\begin{array}{r} 0.3 \\ \times 0.7 \\ \hline \end{array}$	5. $\begin{array}{r} 0.2 \\ \times 0.3 \\ \hline \end{array}$
6. $\begin{array}{r} 0.9 \\ \times 0.1 \\ \hline \end{array}$	7. $\begin{array}{r} 0.1 \\ \times 0.5 \\ \hline \end{array}$	8. $\begin{array}{r} 0.5 \\ \times 0.5 \\ \hline \end{array}$	9. $\begin{array}{r} 0.9 \\ \times 0.6 \\ \hline \end{array}$	10. $\begin{array}{r} 0.2 \\ \times 0.9 \\ \hline \end{array}$

Complete.

11. $\begin{array}{r} \$9,446.39 \\ - 7,610.06 \\ \hline \end{array}$	12. $\begin{array}{r} \$400.47 \\ + 41,717.81 \\ \hline \end{array}$	13. $\begin{array}{r} \$3,085.66 \\ - 290.05 \\ \hline \end{array}$	14. $\begin{array}{r} \$147.81 \\ + 91,423.06 \\ \hline \end{array}$
15. $\begin{array}{r} \$3,298.04 \\ + 7,452.06 \\ \hline \end{array}$	16. $\begin{array}{r} \$765.28 \\ - 367.62 \\ \hline \end{array}$	17. $\begin{array}{r} \$629.87 \\ - 192.54 \\ \hline \end{array}$	18. $\begin{array}{r} \$22,957.04 \\ + 1,424.04 \\ \hline \end{array}$

Fill in the missing negative signs to complete each equation.

$$22. \quad \underline{\quad} 626.62 \div \underline{\quad} 32.3 + \underline{\quad} 16.7 + \underline{\quad} 22 - \underline{\quad} 3^3 = -85.1$$

$$23. \quad \underline{\quad} 92.34 \div \underline{\quad} 5.7 = -16.2$$

$$24. \quad \underline{\quad} 41 + \underline{\quad} 19.2 - \underline{\quad} 3.9 = -25.7$$

Fill in the missing operation.

$$25. \quad (526 \div 2) \square 4 = 267$$

$$26. \quad (5.7 + 35.6) \times 21.1 \square (432 \div 8) = 817.43$$

$$27. \quad (2.5 \div 0.05) \square 5 = 250$$

$$28. \quad 36 \div 0.4 - (62 \square 2) = 59$$

Complete.

$$29. \quad |-15 + -31|$$

$$30. \quad |-45 + -40| - |10 + -33|$$

$$31. \quad |-13 - -42| + |-3 - -22|$$

$$32. \quad |-13 + 43|$$

$$33. \quad |-16|$$

$$34. \quad |12 + -12|$$

Complete.

$$35. \quad 2 \times 5 \times (9 \times 4)$$

$$36. \quad 1 \times 7 \times 6 \times 3 \times 8$$

$$37. \quad 1 \times 8 \times 9$$

$$38. \quad 7 \times (2 \times 5)$$

$$39. \quad 3 \times 4 \times 6 \times 1 \times 3$$

$$40. \quad (9 \times 7) \times (2 \times 8)$$

## Fractions

Add or subtract. Write the answer in simplest form.

$$1. \quad \frac{1}{2} - \frac{3}{9}$$

$$2. \quad \frac{1}{7} + \frac{5}{6}$$

$$3. \quad \frac{3}{5} + \frac{1}{4}$$

$$4. \quad \frac{3}{8} + \frac{1}{3}$$

$$5. \quad \frac{8}{9} - \frac{4}{6}$$

$$6. \quad \frac{3}{5} - \frac{1}{3}$$

$$7. \quad \frac{2}{4} - \frac{2}{8}$$

$$8. \quad \frac{1}{7} + \frac{1}{2}$$

$$9. \quad \frac{4}{5} + \frac{1}{2}$$

## Fractions (Word Problems)

Complete.

- |  |  |
|--|--|
| 1. Sydney found a recipe for baked Indian pudding online. The recipe called for two-fifths of a cup of maple syrup, two-thirds of a cup of light molasses, and half of a cup of brown sugar. How much "sweet stuff" would be needed to make the recipe?  | 2. Aaron made a basket of fire starters for his father. He made them by dipping pinecones in wax. The wax was different colors. When he finished he put them in a pretty basket with a big red bow on it. He made thirty fire starters. One-fifth of them were red and the rest of them were green. How many were green?   |
| 3. Jordan bought a box of stickers that looked like little white doughnuts to reinforce the pages in her notebook. There were two thousand, nine hundred forty stickers in the box, but she could not use some of them. One-sixth of them were stuck so tightly together that she could not detach them from each other. Seventy of them had no holes in the center. One-sixth of them had no glue. How many were left that she could use? | 4. Joshua made a chart to show the cost of a typical lunch at his school. According to the chart each meal costs the school \$2.92 to make. The price charged for the meal is \$3.18. There are 154 students in the school. One-seventh of the students receive free lunches and the rest of the students pay full price. What is the difference between the cost of seven hundred thirty-nine lunches and the amount of money paid for the lunches? |
| 5. Isaac made butterscotch pudding with whipped cream and crushed peanuts for dessert. He used three-fourths of a cup of water, a third of a cup of whipping cream, two-fifths of a cup of peanuts, and half of a cup of milk for the dessert. How much liquid did he use in all?  | 6. Problem: A big grand opening sale is scheduled for the new Megamart in Math City. The sale begins at 11:58 a.m.! You and your friend have been waiting in line since 8:16 a.m. Your friend turns to you after looking at her watch and says, "well, the wait is half over!" What time is it now?  |

## Decimals (Word Problems)

Complete.

1. Mr. Bloop dissolved 5.4 grams of sugar in 112 ml of water. What was the final concentration of sugar (in g/ml)? Round your answer to the nearest ten-thousandth.
2. Two different rocks from near a recent volcanic eruption are compared. Sample A is a rock with a mass of 690 grams and a volume of  $333 \text{ cm}^3$ , and sample B has a mass of 935 grams and a volume of  $506 \text{ cm}^3$ . Which sample is denser and by how much? Round your answer to the nearest hundredth.
3. A special ship was used by MegaSea Inc., to collect rock samples from near an oceanic ridge. The rocks were then dated using radioactive analysis methods. The oldest samples were estimated to be 60.2 million years old. The youngest samples were 26.5 million years old. What was the age span of the rocks?
4. A wild mushroom is found to be 9.5% protein per gram. How many grams of protein are there in 2-kg of the mushrooms?
5. Jason is late for work. He has to drive his triscooter from his house on Road One to his office on Road Four. The trip is about 15.2 km. How long will it take him to get there if his average speed is 30 km/hr?
6. Sean is determining the solubility of the new organic compound he has made in the lab. It was not very soluble in water so he is trying it in methanol. He kept adding small amounts of the golden colored powder to fifty ml of methanol until no more dissolved. In fact there was still a little left undissolved in the flask, so he must have actually went past the saturation point. He had added 0.35 g of the compound. He then added three more ml of methanol, which was just enough to completely dissolve the remainder of the compound. So, what is his result for the saturation point (in g/ml) for the new compound in methanol? Round your answer to the nearest ten-thousandth.  
\_\_\_\_\_ g/ml