

Show all work and circle/box your simplified answers. If you do the problem incorrectly, or don't show sufficient work, you will be asked to rewrite the problem for credit. Students who turn assignments in late (or do not attempt a problem) forfeit their ability to rewrite those problems for credit.

Due at the start of next class (unless otherwise arranged with Professor MG).

- (1) Convert the following phrase into a mathematical expression or equation: 4 less than 6 times a number is 17
- (2) Convert the following phrase into a mathematical expression or equation: A number decreased by 12% is 52
- (3) Convert the following phrase into a mathematical expression or equation: A number decreased by 4 is 5 more than twice the number
- (4) In a triangle, the sum of the angles is always 180° . Determine the three angles of a triangle if one angle is 20° greater than the smallest angle, and another angle is twice the measure of the smallest angle.
- (5) Jaylin is shopping for new wireless headphones. She finds headphones she likes on sale for 20% off. If the sale price is \$176, what was the regular price?
- (6) Kate buys a monthly bus pass, which entitles her to unlimited bus travel, for \$45 per month. Without the pass each bus ride costs \$1.80. How many rides per month would Kate have to take so that the cost of the rides without the bus pass is equal to the total cost of the rides with the bus pass (i.e. for the pass to be "worth it")?
- (7) It costs Bill \$12.50 a week to wash and dry his clothes at the corner laundry. If a washer and dryer cost a total of \$940, how many weeks will it take for the laundry cost to equal the cost of a washer and dryer?
- (8) The cost of renting a moving truck is \$60 per day plus \$0.25 per mile driven. Nancy is moving and will need to rent a truck for 4 days. If she wants to spend \$300, how many miles can she drive the truck?
- (9) To determine the average of a set of test scores, divide the sum of the scores by the number of scores. On Grant's first four Intermediate Algebra tests, his scores were 76, 91, 97, and 87. Determine what score Grant must earn on his fifth test to have an average of 90.
- (10) Melissa is planning on baking chocolate, peanut butter, and oatmeal raisin cookies. Based on the results from last year's bake sale, she knows that chocolate cookies are half as popular as oatmeal raisin cookies, and that peanut butter cookies are three times as popular as chocolate cookies. If she only has ingredients to bake 480 cookies, how many of each cookie should she bake?