Name		Period	
Int 2 Acc	Homework 1-7 Creating Linear Equations (Part 2)		Unit 1
Match the following equiva	lent equations:		
1. $y = -x + 6$ 2. $y = \frac{1}{2}x - 4$ 3. $y = 6x - 1$ 4. $y = -6x + 1$		A. $y = -6 + x$ B. $y = 4 - \frac{1}{2}x$ C. $y = -4 + \frac{1}{2}x$ D. $y = -1 + 6x$ E. $y = 1 - 6x$	

5. Sheila received a check on her birthday and places the money in a savings account. She starts taking \$75 from the account each week to spend. After 3 weeks she has \$450 in the account. Write an equation representing the situation. (If slope-intercept form, write in two different ways.)

F. y = 6 - x

- 6. How much money will Sheila have after 10 weeks?
- 7. When you buy a truck it is worth \$36,000. After owning it for 10 years it is worth \$15,000. Assuming it lost value at a constant rate, write an equation that would calculate how much it is worth after *x* years. (If slope-intercept form, write in two different ways.)

- 8. Charlie is given a bunch of baseball cards for his 8th birthday and decides to start collecting more. On his 9th birthday he has 112 cards and on his 10th birthday he has 124 cards. Assume Charlie collected the same amount of cards each year.
 - a. How many cards does Charlie collect each year?
 - b. How many cards did Charlie get on his 8th birthday?
 - c. Write an equation that would calculate how many cards he has based on how long he has been collecting. (If slope-intercept form, write in two different ways.)

- 9. Antonio goes to the store with \$31 to buy cereal and milk. Cereal costs \$3.25 a box and milk costs \$2.50 a gallon. Write an equation that represents the different combinations of cereal and milk he could buy. (If slope-intercept form, write in two different ways.)
- 10. If he buys 8 boxes of cereal, how many gallons of milk can he buy?
- 11. Brittany plants a bean stalk and then records how tall it is since it was planted. The results are in the table below. Assuming the pattern continues, write an equation to calculate the height according to how many days since the stalk was planted. (If slope-intercept form, write in two different ways.)

Day	Height of	
	Stalk	
1	10 inches	
3	16 inches	
4	19 inches	
11	40 inches	

- 12. If the bean stalk is 52 inches tall, how many days have passed?
- 13. You are buying \$30 worth of birdseed that consists of two types of seed. Thistle seed attracts finches and costs \$2 per pound. Dark oil sunflower seed attracts many kinds of sunbirds and costs \$1.50 per pound. Write an equation that represents the different amounts of \$2 thistle seed, *x*, and \$1.50 dark oil sunflower seed, *y*, that you could buy. (If slope-intercept form, write in two different ways.)
- 14. In a supermarket, apples cost \$0.50 each, and grapefruits cost \$2 each. If you want to spend exactly \$15 at the supermarket, write an equation modeling this situation. Let *a* represent the number of apples you buy, and *g* represent the number of grapefruits you buy. (If slope-intercept form, write in two different ways.)
- **15.** Emma gets out of a bath tub that had 40 gallons of water in it. She starts draining it and after 4 seconds, 39 gallons remain in the bathtub. How much is drained from the bathtub each second?
- **16.** Write an equation representing the situation from #15. (If slope-intercept form, write in two different ways.)

- 17. It costs Marcus \$2.50 for each visit to his gym, plus it costs him a registration fee. After 5 visits to the gym his total cost is \$57.50. Write an equation to calculate how much the gym will cost him this year depending on how many visits he makes. (If slope-intercept form, write in 2 ways.)
- 18. Elisa buys a house that has a patio partially completed in the backyard. To finish the patio she decides she will lay the same number of bricks per day. There are 45 bricks in the patio to start with. After laying bricks for 10 days, there are a total of 195 bricks. Write an equation that would calculate how many bricks will be on the patio depending on how many days Elisa has been working. (If slope-intercept form, write in 2 ways.)

- 19. A bank account starts with \$1550 and you withdraw the same amount each day. The bank account is emptied after 31 days. Write an equation to calculate how much money remains in the account depending on how many days they have been withdrawing money. (If slope-intercept form, write in 2 ways.)
- 20. George bought movie tickets for his family. He bought 7 child tickets and 4 adult tickets. His total was \$65.50. Write an equation representing the different possibilities for price of tickets. (If slope-intercept form, write in 2 ways.)
- 21. If adult tickets were \$8.50, how much did child tickets cost?

22. Block Buster used to charge for each movie you rented. If you rented 4 movies it cost \$14. If you rented 10 movies it cost \$35. Write an equation representing the situation. (If slope-intercept form, write in 2 ways.)