# Algebra I NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Ch. 5 Test Practice DATE:\_\_\_\_\_\_\_\_\_\_\_\_ HOUR:\_\_\_\_

1. Stanley has $50 in his savings account. He just got a job making $12.50 an hour.

Let y = the amount of money in his savings account. Let x = the numbers of hours worked.

1. Write an equation to model this situation.
2. Use your equation to find the number of hours he needs to work to have $325 in his account.

Show your work.

1. Use your equation to find the amount in his savings account after working 40 hours.

Show your work.

1. Identify the slope and y-intercept of your equation.

 slope = \_\_\_\_\_\_\_ y-intercept = \_\_\_\_\_\_\_

1. Identify the x-intercept, the y-intercept, the slope and the equation of the line from the graph.
2. x-intercept \_\_\_\_\_\_
3. y-intercept \_\_\_\_\_\_
4. slope \_\_\_\_\_
5. equation

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Identify the x-intercept, the y-intercept, the slope and the equation of the line from the graph.
2. x-intercept \_\_\_\_\_\_
3. y-intercept \_\_\_\_\_\_
4. slope \_\_\_\_\_
5. equation

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Describe the slope of each line as **positive, negative, zero** or **undefined.**
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Identify the slope of each line.
7. m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. Identify the slope and y-intercept then graph the line.

y = ̶ $\frac{3}{4}$ x + 2

slope = \_\_\_\_\_\_\_

y-intercept = \_\_\_\_\_\_

1. Identify the slope and y-intercept then graph the line.

 y = 4x – 3

slope = \_\_\_\_\_\_\_

y-intercept = \_\_\_\_\_\_

1. Transform y = $\frac{1}{3}$ x + 2 into **standard form.** Show your work.
2. Transform 8x + 4y = 12 into **slope-intercept form.** Show your work.
3. Transform y = - 4x – 3 into **standard form.** Show your work.
4. Transform $\frac{1}{3}$ x + $\frac{2}{3}$ y = 4 into **slope-intercept form.** Show your work.
5. You take your friends to Starmath Cafe. You want to buy hot chocolates for $3 each and frappes for $5 each. You have $30 to spend.

Let x = hot chocolates and y = frappes.

* 1. Write a **standard form** equation to model this situation.
	2. Use your equation to find the x-intercept. Show your work.
	3. In a **complete sentence**, identify what the x-intercept means in this problem situation.
	4. Use your equation to find the y-intercept. Show your work.
	5. In a **complete sentence**, identify what the y-intercept means in this problem situation.
1. Complete the piecewise definition of the function.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_ ≤ x ≤ \_\_\_\_\_

f(x) =

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_ ≤ x ≤ \_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_ ≤ x ≤ \_\_\_\_\_

1. Complete the piecewise definition of the function.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_ ≤ x ≤ \_\_\_\_\_

f(x) =

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_ ≤ x ≤ \_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_ ≤ x ≤ \_\_\_\_\_

1. The formula for simple interest is I = prt. Solve the equation for p.
2. Find the amount of interest earned by depositing $1400 into an account that earns 4% interest for one

 year. Show your work.

1. How much did Billy Madison deposit in his account if he earns $90 in interest in an account with 2%

 interest for 3 years? Show your work.

1. Solve the equation a = bh for h.
2. Solve the equation ax + b = c for a.