

Math 8 - Solving Equations Name: _____

Show all your work and verify for full marks

1. Solve the following equations (**3 marks each - 1 mark for answer, 1 mark for work, and 1 mark for verification**)

a) $9x + 15 = 42$

f) $\frac{t}{-8} + 7 = 18$

b) $-35 = 8t + 5$

g) $-8 + \frac{y}{5} = 9$

c) $-6p + 12 = -30$

h) $\frac{x}{4} + \frac{5}{4} = 6$

d) $11 = 23 - 6w$

i) $\frac{x}{6} = \frac{11}{3}$

e) $-5 = \frac{w}{-14}$

j) $\frac{2x}{5} + 5 = 13$

2. Ethan has \$39 in his savings account. He saves \$20 each week. How long will it take before he has \$439 in his account? **(3 marks)**

3. Jac "Attack" Buhler wants to buy a skateboard that costs \$72. He plans to save \$6 per week. How many weeks will it take him to save \$72.
 - a. Write an equation you can use to find how many weeks it will take Jac to save \$45. **(1 mark)**

 - b. Solve the equation and solve the equation. **(2 marks)**

4. Riley opened a checking account with \$560. She withdrew the same amount each week for 13 weeks. Her balance was then \$365.
 - a. Write an equation you can use to find how much money Riley withdrew each week. **(1 mark)**

 - b. Solve the equation and solve the equation. **(2 marks)**

5. Explain the rules for multiplying and dividing integers (HINT: good/bad guy) **(1 mark)**