<u>Real-World Equations and Inequalities</u>

1) A cheese pizza costs $5. Additional toppings cost $1.50 each.

    a) Write an equation in two variables that represents the total cost of a pizza.

    b) Identify the independent and dependent variable.

    c) How much does a pizza with 3 toppings cost?

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2) It costs $35 to join a gym. The monthly fee is $25.

    a) Write an equation in two variables that represents the total cost of a gym membership.

    b) Identify the independent and dependent variable.

    c) What is the total cost of your gym membership after 7 months.

1) An online store has the following advertisement on there homepage.
"FREE Standard Shipping when you spend $75 or more!"
You have already spent $24 shopping online for clothes.

a) Write and solve an inequality to represent the additional amount you must spend to get free shipping.

b) You find a pair of shoes that cost $51. Will the clothes and the shoes be enough to get free shipping? Explain.

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2) A one-way bus ride costs $1.75. A 30-day bus pass costs $42.

a) Write and solve an inequality to find the least number of one-way rides you must take for the 30-day pass to be a better deal.

b) You ride the bus an average of 20 times each month. Is the pass a better deal? Explain.

1) Write an equation and solve for the following word sentences.

    a) 24 is 3 times a number p.

    b) 3 less than a number p is 24.

    c) The quotient of a number p and 3 is 24.

    d) 24 is 3 more than a number p.

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2) Write an inequality and solve for the following word sentences.

    a) 32 is more than 8 times a number g.

    b) 8 more than a number g is at least 32.

    c) 8 is less than 32 less than a number g.

    d) 32 is at most the quotient of a number g and 8.