

Math Word Problems

Let's face it, as useful as math is (and I think it's pretty useful), sometimes practicing it can be a boring and repetitive. We've tried to make things a bit more interesting by connecting some math word problems to the water conservation efforts. We suggest that students do some of the other activities first to form some understanding about the importance of water.

Support sheets are provided following the last question.

1. If a dripping faucet leaks just one drop of water every minute, how many drops of water are wasted in an hour? How about in a day? What if there are two or three drops of water every minute?
 - o Variations/extensions:
 - If there are 1000 drops of water in a bottle of water you can buy at the store, how long will it take to fill a bottle?
 - Have students determine how much it would cost to buy that much water at the corner store and then have them compare it to how much it would cost to fix the leak. Do-it-yourself leak fix is about \$3 for the rubber piece. If you need to call a plumber, it will cost around \$100. Assume a bottle of water costs \$1.50.
 - Repeat the original question using 0.2 mL as the volume for a drop of water. Calculate the amount of water wasted each day.
 - Have students convert mL to L and/or to gal.; remind students (or have them show the math) to determine the number of seconds in a day/24 hours).

2. If it takes 10 buckets of water to grow one apple, how much water would be wasted if a family throws away 2 apples every month?
 - Each pound of food we grow (fruits, vegetables, and grains) needs about 1,000 lb. of water to grow. If a family throws away 0.5 lb. of vegetables every week, how much water are they “throwing away” every year?

3. Do you leave the water running when you brush your teeth? For one week keep track of how many times **you remember to turn the water off** when you brush your teeth. Create a line graph to show the results.

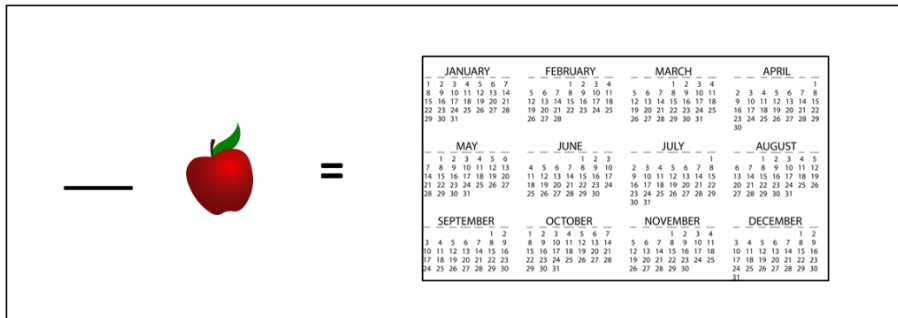
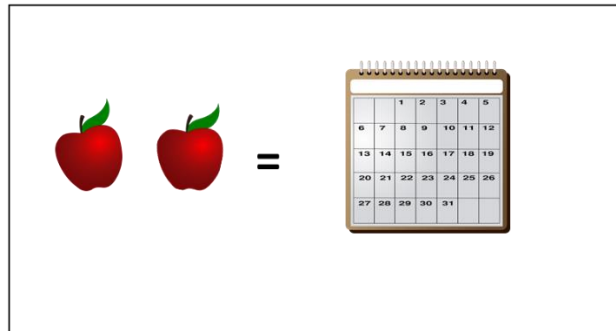
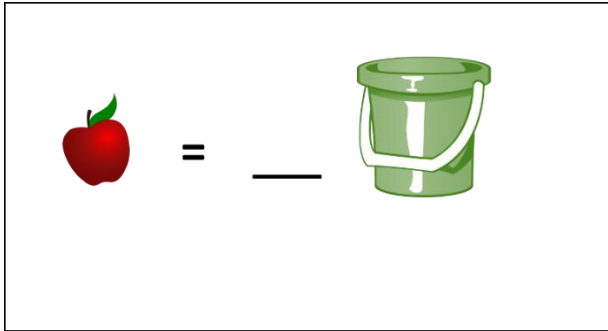
If a dripping faucet leaks just one drop of water every minute, how many drops of water are wasted in an hour? How about in a day? What if there are two or three drops of water every minute?

Extra:

4. If there are 1000 drops of water in a bottle of water you can buy at the store, how long will it take to fill a bottle?
5. If the leak continued for a month how much water would be wasted? If a bottle of water costs \$1.50 how much would it cost you to buy that much water at the store? How does that compare to fixing the leak. Do-it-yourself leak fix is about \$3 for the rubber piece. If you need to call a plumber, it would cost around \$100.

If one apple needs ___ buckets of water to grow, how much water would be wasted each month if you threw out 2 apples in a month? How much water would be wasted each year?

You can use the pictures below to help you figure it out.



Do you leave the water running when you brush your teeth? For one week keep track of how many times **you remember to turn the water off** when you brush your teeth. Together with your class create a line graph to show the results.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

