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1. Each year salmon go up the Columbian River to lay eggs and then swim back down the river. To go up the river, the salmon use fish ladders, but to go down the river, the young salmon must pass through the electrical turbines of eight dams. Approximately $12 \%$ of the salmon are killed as they pass through each turbine.

If there were 1000 salmon, how many salmon would still be alive after traveling through the first turbine?

How many salmon would be left after traveling through all of the turbines?
Show how you figured it out.
2. You find a pair of shoes that are on sale for $\$ 33$, which is $40 \%$ off the original price. What was the original price?
3. How are questions 1 and 2 similar?
4. If the current population of Highland City is 75,000 people and it increases $2 \%$ each year, what will the population be in one year? five years from now?
5. A store buys a skateboard for $\$ 75$ and marks up the price $40 \%$. How much do they sell the skateboard for?
6. How are questions $4 \& 5$ similar?

## Work out the following problems.

7. You are shopping at a store and you see a pair of shorts that are on sale for $25 \%$ off. The original price was $\$ 35$. You found another pair of shorts that are on sale for $30 \%$ off and the original price was $\$ 40$. Which pair of shorts is the better deal?
8. A store buys an aquarium for $\$ 75$. They mark up the price by $50 \%$. After a few months they discount the aquarium by $35 \%$. What is the price of the aquarium after being discounted?

Determine if each situation is an increase or decrease. Find the percent of increase or decrease.
9. original: 34 , new: 56
11. original: 105, new 97
12. Original: 88 , new: 106
13. How do you find percent of increase or percent of decrease?

