

**Write an equation and solve. Where necessary, round to the nearest tenth or tenth of a percent.**

1. 120% of  $y$  is 42. What is  $y$ ?
2. What percent of 48 is 18?
3. Find 150% of 74.
4.  $33\frac{1}{3}\%$  of  $p$  is 19. What is  $p$ ?
5. Thirty-five of 40 students surveyed said that they favored recycling. What percent of those surveyed favored recycling?
6. What percent of 84 is 63?
7. Find  $66\frac{2}{3}\%$  of 87.
8. A camera regularly priced at \$295 was placed on sale at \$236. What percent of the regular price was the sales price?

**Percent Change:**

9. Your phone screen time was 2 hours and 20 minutes per day average one week and 3 hours and 45 minutes per day the next week. How did your screen time change?
10. Your favorite shoes cost currently are marked \$112 at the store. They were originally \$164. What is the change in shoe price?

**Mark-up and Discount Problems:**

11. You go to the Aquarium co-op to buy a new cave for your fish. The cost to the store of the cave is \$14 and it has a 82% mark-up. What is the selling price of this aquarium cave?
12. You and a friend go to buy bubble tea. Each tea costs \$4.50. You have a 20% coupon. What is your discount? You are buying both teas - what will you owe (before tax)?

**Using Percents to make predictions:**

13. 30 out of 50 students surveyed plan to attend the Friday night football game. What percent are planning to attend the game? At this rate, how many of the total 420 students will attend the game?
14. The average baseball player reaches base safely 3 out of every 10 times at bat. If he has 220 at bats, how many times should he reach safely?
15. On a local tropical island, it rains 5 days out of every 7 during the rainy season. What is the percentage of days it rains during this season? If there are 180 days in the rainy season – about how many of them can expect to have rain?
16. The following responses were given when students were asked to name their favorite holiday. What percentage most enjoy their birthday? At this rate, how many students in a group of 420 would say their favorite holiday is their birthday?

Holiday	# of Students who said it was their favorite
Christmas	17
Easter	2
Birthday	12
Fourth of July	5
Thanksgiving	4