

PERCENT SKILLS REVIEW

► **Change each fraction or decimal to a percent.**

1. $\frac{7}{10} =$ $\frac{1}{4} =$ $\frac{2}{3} =$ $0.4 =$ $0.625 =$ $0.09 =$

► **Change each percent to a fraction or mixed number and reduce all fractions.**

2. $1\% =$ $10\% =$ $75\% =$ $250\% =$ $66\frac{2}{3}\% =$ $133\frac{1}{3}\% =$

► **Change each percent to a decimal.**

3. $5\% =$ $25\% =$ $90\% =$ $5.5\% =$ $10.6\% =$ $225\% =$

► **Find each part.**

4. 20% of $60 =$ 7.5% of $80 =$ $2\frac{1}{2}\%$ of $50 =$ 125% of $60 =$

► **Find each percent.**

5. 20 is what percent of 80?

What percent of 200 is 30?

6. 9 is what percent of 180?

What percent of \$3.75 is \$1.25?

► **Find each whole.**

7. 40% of what number is 160?

45 is 15% of what number?

8. 6.5% of what number is 130?

$33\frac{1}{3}\%$ of what number is 57?

Solve.

9. In a state with a 6% sales tax, how much tax must be paid on a jacket that sells for \$135?
10. Because he paid cash, Richard was able to save \$22 on a \$440 camera. What percent discount was Richard given for paying cash?
11. Vada made a 10% down payment of \$33.50 when she bought her new sofa. What was the total price of this sofa?
12. Dewi and her family had dinner at the Sitar Restaurant. The bill came to \$26.00. What will be the total price of the meal if Dewi leaves a 15% tip?
13. By ordering through the catalog, Myron is able to save 12% of the store's price. If he orders through the catalog, what will Myron be charged for a fishing pole that the store sells for \$68.50?
14. Last month, Mohammed's rent was increased from \$300 to \$315. What percent rent increase does this change represent?
15. When the new highway was built, the distance between Devan and Oak Grove was shortened from 180 miles to 120 miles. What percent decrease in distance is this change?
16. At a Fourth of July sale, Wanda bought a table marked "30% OFF." What was the original price of the table if Wanda paid only \$84?
17. Donna borrowed \$800 from her credit union. She is being charged 14% simple interest. How much interest will Donna pay on this loan if she makes no payments for 2 years?
18. Mike placed \$600 in a savings account that earns 4% simple interest. What **total amount** will be in Mike's account at the end of 2 years?
19. Suppose you take out a \$400 loan. How much interest will you owe at the end of 9 months if you're paying a simple-interest rate of 16%?
20. Lila pays a 1.5% finance charge each month on any unpaid balance on her Visa card. How much in finance charges will Lila have to pay on this month's \$280 purchases if she doesn't make any payments?

PERCENT SKILLS REVIEW

► Change each fraction or decimal to a percent.

$$1. \frac{7}{10} = 70\% \quad \frac{1}{4} = 25\% \quad \frac{2}{3} = 66\frac{2}{3}\% \quad 0.4 = 40\% \quad 0.625 = 62.5\% \quad 0.09 = 9\%$$

► Change each percent to a fraction or mixed number and reduce all fractions.

$$2. 1\% = \frac{1}{100} \quad 10\% = \frac{1}{10} \quad 75\% = \frac{75}{100} = \frac{3}{4} \quad 250\% = 2\frac{1}{2} \quad 66\frac{2}{3}\% = \frac{2}{3} \quad 133\frac{1}{3}\% = 1\frac{1}{3}$$

► Change each percent to a decimal.

$$3. 5\% = .05 \quad 25\% = .25 \quad 90\% = .90 \quad 5.5\% = .055 \quad 10.6\% = .106 \quad 225\% = 2.25$$

► Find each part.

$$4. \begin{array}{llll} 20\% \text{ of } 60 = & 7.5\% \text{ of } 80 = & 2\frac{1}{2}\% \text{ of } 50 = & 125\% \text{ of } 60 = \\ .2 \times 60 = 12 & .075 \times 80 = 6 & .025 \times 50 = 1.25 & 1.25 \times 60 = 75 \end{array}$$

► Find each percent.

5. 20 is what percent of 80?

$$\frac{20}{80} = \frac{1}{4} = 25\%$$

What percent of 200 is 30?

$$\frac{30}{200} = \frac{15}{100} = 15\%$$

6. 9 is what percent of 180?

$$\frac{9}{180} = \frac{1}{20} = 5\%$$

What percent of \$3.75 is \$1.25?

$$\frac{1.25}{3.75} = \frac{1}{3} = 33\frac{1}{3}\%$$

► Find each whole.

7. 40% of what number is 160?

$$\frac{40}{100} X = 160 \quad X = \frac{160 \times 100}{40} = 400$$

45 is 15% of what number?

$$\frac{15}{100} = \frac{3}{20} \quad \frac{3}{20} X = 45 \quad X = 45 \times \frac{20}{3} = 300$$

8. 6.5% of what number is 130?

$$\begin{aligned} .065 X &= 130 \\ X &= 130 \div .065 \\ X &= 2000 \end{aligned}$$

33 $\frac{1}{3}$ % of what number is 57?

$$\begin{aligned} \frac{1}{3} X &= 57 \\ X &= 57 \times 3 \\ &= 171 \end{aligned}$$

Solve.

9. In a state with a 6% sales tax, how much tax must be paid on a jacket that sells for \$135?

$$.06 \times 135 = \$8.10$$

10. Because he paid cash, Richard was able to save \$22 on a \$440 camera. What percent discount was Richard given for paying cash?

$$\frac{22}{440} = \frac{1}{20} = 5\%$$

11. Vada made a 10% down payment of \$33.50 when she bought her new sofa. What was the total price of this sofa?

$$\begin{aligned} .1x &= 33.50 \\ x &= 33.5 \times 10 \\ &= \$335 \end{aligned}$$

12. Dewi and her family had dinner at the Sitar Restaurant. The bill came to \$26.00. What will be the total price of the meal if Dewi leaves a 15% tip?

$$.15 \times 26 = 3.90 + 26.00 = \$29.90$$

13. By ordering through the catalog, Myron is able to save 12% of the store's price. If he orders through the catalog, what will Myron be charged for a fishing pole that the store sells for \$68.50?

$$\begin{aligned} .12 \times 68.50 &= 8.22 \\ 68.50 - 8.22 &= \$57.28 \end{aligned}$$

14. Last month, Mohammed's rent was increased from \$300 to \$315. What percent rent increase does this change represent?

$$\frac{15}{300} = \frac{1}{20} = 5\%$$

15. When the new highway was built, the distance between Devan and Oak Grove was shortened from 180 miles to 120 miles. What percent decrease in distance is this change? $180 - 120 = 60$

$$\frac{60}{180} = \frac{1}{3} = 33\frac{1}{3}\%$$

16. At a Fourth of July sale, Wanda bought a table marked "30% OFF." What was the original price of the table if Wanda paid only \$84? $70\% \text{ of } x = 84$

$$\begin{aligned} .7x &= 84 \\ x &= 84 \div 0.7 \\ x &= 120 \end{aligned}$$

17. Donna borrowed \$800 from her credit union. She is being charged 14% simple interest. How much interest will Donna pay on this loan if she makes no payments for 2 years?

$$\begin{aligned} .14 \times 800 &= \$112 \\ \$112 \times 2 &= \$224 \end{aligned}$$

18. Mike placed \$600 in a savings account that earns 4% simple interest. What **total amount** will be in Mike's account at the end of 2 years?

$$\begin{aligned} .04 \times 600 &= \$24 \times 2 = \$48 \\ 600 + 48 &= \$648 \end{aligned}$$

19. Suppose you take out a \$400 loan. How much interest will you owe at the end of 9 months if you're paying a simple-interest rate of 16%?

$$\begin{aligned} 9 \text{ mos} &= \frac{3}{4} \text{ of } 1 \text{ yr.} \\ .16 \times 400 &= 64 \\ \frac{3}{4} \times 64 &= \$48 \end{aligned}$$

20. Lila pays a 1.5% finance charge each month on any unpaid balance on her Visa card. How much in finance charges will Lila have to pay on this month's \$280 purchases if she doesn't make any payments?

$$.015 \times \$280 = \$4.20$$