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Find the percent of change.

$$\text{from } \$100^{\circ} \text{ to } \$96^{\circ}$$

$$\frac{96-100}{100} = -4\%$$

Simple interest

$$I = PRT$$

$$I =$$

$$P = 3,250 \quad 3,250$$

$$R = 4.5\% \quad .045$$

$$T = 18 \text{ months} \quad 1.5 \text{ years}$$

$$I = 3250 \times .045 \times 1.5$$

$$(219.38)$$

$$\text{from } -14^{\circ} \text{ to } 24^{\circ}$$

$$\frac{24 - (-14)}{-14} = \frac{38}{-14}$$

$$I = 450$$

$$P =$$

$$R = 2\% \quad .02$$

$$T = 5 \text{ years}$$

$$450 = P \times .02 \times 5$$

$$\frac{450}{.1} = \frac{P \times .1}{.1}$$

$$(4500)$$

Find 15% of 25.

$$\frac{\text{is}}{\text{of}} = \frac{70}{100}$$

30 is 40% of what number?

What percent of 125 is 95?

① $\frac{3.75}{25} = \frac{15}{100}$

② $\frac{30}{75} = \frac{40}{100}$

③ $\frac{95}{125} = \frac{76}{100}$

percent of change

$\frac{N-D}{O}$	<p>5. Ian worked 25 hours at the grocery store last week and 36 hours this week.</p> $\frac{36-25}{25}$ <p>44% I</p>	<p>6. The football team scored 128 total points last season. This year, they scored 144 total points.</p> $\frac{144-128}{128}$ <p>12.5% I</p>
	<p>7. The store employee changed an \$8.00 price sticker to \$2.50 and placed it on the sale shelf.</p> $\frac{2.50-8}{8}$ <p>68.75% D</p>	<p>8. The police officer gave a woman a ticket for driving 75 mph in a 55 mph speed zone.</p> $\frac{20}{55}$ <p>36.36% I</p>
	<p>9. The total rainfall was 14.5 inches in 2014 and 8.90 inches in 2015.</p> <p>38.6% D</p>	<p>10. Rob took 75 minutes to finish his 6th grade math final exam and 1 hour and 40 minutes to finish his 7th grade math final exam.</p> $\frac{100-75}{75}$ <p>33.3% I</p>
	<p>11. In Mr. Wahlen's math class, Erin earned an 88 in the 1st quarter and a 94 in the 2nd quarter.</p> <p>6.81% I</p>	<p>12. The enrollment at a university increased from 14,000 to 16,000 students.</p> <p>14.3% I</p>
	<p>13. The florist sold 800 roses last year on Valentine's Day. This year, the sold 638 roses.</p> <p>20.25% D</p>	<p>14. The golf club paid \$40 for a certain golf club, then sold it for \$75.</p> <p>87.5% I</p>

simple interest

<p>Applications</p>	<p>Directions: Assume each problem refers to simple interest. Read carefully and solve. Round to the nearest tenth or cent when necessary.</p>	
	<p>9. Marsha borrowed \$8,975 at a 4.9% interest rate to purchase a used car. How much total will she have paid after 5 years?</p>	<p>10. Carolyn borrowed \$38,500 to pay for college. If the interest rate is 3.2%, how much total will she have paid after 10 years?</p>
	<p>\$11,173.88</p>	<p>$I = 38500 \times .032 \times 10$ $I = 12,320$ $38500 + 12,320$ $(50,820)$</p>
	<p>11. Victor used a 36-month line of credit for \$15,000 to remodel his kitchen. If the interest rate is 2.5%, how much will he pay in interest?</p>	<p>12. Lance placed \$5,200 in an investment account with a 6.5% interest rate. After how many years will he double his initial investment?</p>
	<p>1,125</p>	<p>$5200 = 5200 (.065)(t)$ $5200 = 338t$ 15.4 years</p>
	<p>14. Shane took out a 5.5-year loan from the bank in order to purchase a \$12,000 motorcycle. At the end of the loan, he had paid \$3267 in interest. Find the interest rate.</p>	<p>14. Gabby used a 2-year loan to purchase a \$1,650 television. If she ended up paying \$1,914 in total, find the interest rate.</p>
<p>$3267 = 12000(5.5)(R)$ $66,000$ $.0495 = R$ 4.95%</p>	<p>8%</p>	
<p>16. Elaina started a savings account with \$3,000. The account earned \$10 each month in interest over a 5-year period. Find the interest rate.</p>	<p>16. Alex bought a new boat with a 15-year loan at a 2.4% interest rate. If he ended up paying \$8456.40 in interest, what was the purchase price of the boat?</p>	
<p>4%</p>	<p>$8456.40 = P \times .024(15)$ $\frac{8456.40}{.36} = \frac{P \times .36}{.36}$ $23,490$</p>	

$600 = 3000 R 5$
 $\frac{600}{15000} = \frac{3000 R 5}{15,000}$

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$$I = PRT$$

Simple Interest Review

<p>Suppose \$3,750 is placed in a savings account for 4 years. Find the interest earned if the interest rate is 1.85%.</p> $I = 3750 \times 0.0185 \times 4$ $\$ 277.50$	<p>Simone borrowed \$13,500 from the bank to purchase a used car. If the interest rate on this 72-month loan is 5.9%, how much will Simone pay in total back to the bank?</p> $I = 13500 \times 0.059 \times 6$ $I = 4779$ $T = 18,279$
<p>Rylan placed \$1,200 in a retirement account. Seven years later, it had earned \$546 in interest. Find the interest rate.</p> $546 = 1200 \times R \times 7$ $546 = 8400 \times R$	<p>Andy took out a 5-year loan at a 12.5% interest rate to pay for a trip to Spain. If he ended up paying \$4,937.50 in interest, how much was the trip?</p> $4937.50 = P \times 0.125 \times 5$ $4937.50 = P \times 0.625$

$$\frac{546}{8400} = 0.065 \text{ (6.5\%)}$$

Simple Interest Review

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Quiz

Shopping / Checkbook Activity

IX L 8th grade

J.11, K.11

IXL

8th Grade

J.11, K.11

re-Algebra Unit 3 Test Review

Name _____

Date _____ Block _____

1. Express 48 baseballs out of 86 sports balls as a fraction in simplest form.
2. Lucy earned \$27 for walking 4 dogs. How much would she earn after walking 9 dogs?
3. A bakery can make 195 doughnuts in 3 hours. At this rate, how many doughnuts can the bakery make in 8 hours?
4. A recipe that makes 2 dozen cookies calls for $\frac{3}{4}$ cup sugar. How much sugar is needed to make 5 dozen cookies?
5. Solve: $\frac{15.75}{4} = \frac{n}{2}$
6. What is 20% of 95?
7. A kayak is on sale for \$612, which is a 15% reduction from the original price. What was the original price?
8. Find the percent of change from 14 inches to 35 inches.
9. 16 is 40% of what number?
10. What is 25% of 49?
11. Find the simple interest paid on \$600 if it is borrowed at 3% over 5 years.
12. Pia used a scale of 1 inch = 2 feet to construct a scale model of her backyard. A tree in the model has a height of 4 inches. What is the actual height of the tree?
13. At the same time a 10-foot pole casts a 15-foot shadow, a nearby tree casts a 30-foot shadow. How tall is the tree?
14. Use the similar triangles to solve for x.

15. Use the circle graph to answer the question. Suppose 200 people were surveyed. How many people prefer pepperoni on their pizza?
16. Brandi ordered a pizza to be delivered to her home. The bill for the pizza was \$28. She gave the delivery man a 15% tip. How much was the tip?
17. Eleven seniors are on the high school football team. This is 24% of the team. How many students are on the football team?
18. 500 people were surveyed. 75 of them said they prefer sausage on their pizza. What percent prefer sausage?
19. Mei buys a suit marked \$60. She receives a 25% discount. Find the sale price of the suit.
20. An architect is designing a school courtyard that is 45 feet long and 30 feet wide. Construct a scale drawing of the courtyard. Use a scale of 0.5 inch = 10 feet.
21. Jamal is comparing prices of several different brands of peanuts.
- | | |
|-----------------|-------------------|
| Barrel peanuts: | 10 oz. for \$3.39 |
| Mr. Nut: | 14 oz. for \$4.54 |
| Chip's: | 18 oz. for \$6.26 |
- a. Find the unit price for each can of peanuts.
- b. How much would 15 oz. of Barrel peanuts cost?
- c. How many cans of Mr. Nut peanuts can you buy with \$25?
22. A rock that weighed 1.6 pounds on the moon weighed 8.05 pounds on Earth. How much would an astronaut who weighs 182 pounds on Earth weigh on the moon?
23. The flood waters rose to 119 ft. but have now decreased to 111 ft. Find the percent of change.
24. Find the percent of change from 25 pounds to 15 pounds.
25. What is the selling price of a kitten that cost the pet store \$249.50 with a mark-up of 21.5%?

