

Math 6 Plus Unit 9

Proportional Relationships and Percentages

Extra Practice Problems

1) Avery earned a raise of an additional \$2.50 per hour. Initially, she started at \$10.00 an hour. What is the percent increase in Avery’s hourly pay?	2) A toy car is 3 inches long. An actual size car is 180 inches long. What is the percent increase from the toy car to actual size car?												
3) Use the formula $i = prt$, where i is the interest earned, p is the principal (starting amount), r is the interest rate expressed as a decimal, and t is the time in years. Graham has \$720 in a savings account that earns 1.5% annually. How much total will he have in 6 months?	4) Please observe the store chart: <table><tr><th>Item</th><th>Cost</th><th>Current Promotion</th></tr><tr><td>Shirt</td><td>\$14.99</td><td>15% Off</td></tr><tr><td>Jacket</td><td>\$49.99</td><td>40% Off</td></tr><tr><td>Socks</td><td>\$3.98</td><td>Buy 1 Pair Get 1 Pair 50% Off</td></tr></table> <p>If we purchase two pairs of socks, 1 jacket, and 1 shirt, how much will we spend in total with a sales tax rate of 6.5%?</p>	Item	Cost	Current Promotion	Shirt	\$14.99	15% Off	Jacket	\$49.99	40% Off	Socks	\$3.98	Buy 1 Pair Get 1 Pair 50% Off
Item	Cost	Current Promotion											
Shirt	\$14.99	15% Off											
Jacket	\$49.99	40% Off											
Socks	\$3.98	Buy 1 Pair Get 1 Pair 50% Off											
5) A car salesperson makes 25% commission on each car sold. If the salesperson just sold a vehicle for \$42,000, how much in commission was made?	6) Anthony found a sweater on sale for 15% off! The discount price of the sweater before tax is \$22.74. What is the regular price of the sweater before the discount?												

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7) When a skydiver is balled up when he/she jumps out of a plane, the skydiver falls at about 200 mph. When arms and legs are fully extended, the skydiver will fall at a rate of 125 mph. Complete the table for a skydiver with arms and legs fully extended.

Time (Minutes)	Distance (Miles)
30	
60	125
	$156\frac{1}{4}$

What is the unit rate for a time of one minute? Write solution as a mixed number.

8) Devika pours 4.2 ounces of water from a full bottle. She estimates that she poured out 35% of the water in the bottle. About how much water was in the full bottle?

9) Kristen is feeding her llamas. She uses $5\frac{1}{4}$ cups of a grain and vitamin mixture to feed 7 llamas. Which of these equations represents the relationship between x , cups of food mixture, and y , number of llamas?

A. $x = \frac{21}{4}y$

B. $x = \frac{3}{4}y$

C. $x = \frac{4}{3}y$

D. $x = \frac{9}{4}y$

10) Jamal reads every day. He read 55 pages on Tuesday, which is 25% less than what he read on Monday. How many total pages did Jamal read on Monday and Tuesday? Write solution as a mixed number.