Unit 4
Cool-downs

Proportional Relationships and Percentages

Click on a title in the list below to scroll directly to that lesson.

NAME   DATE   PERIOD
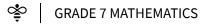
Unit 4, Lesson 1
Cool-down

1.4 Colorado State Flag

The side lengths of the state flag of Colorado are in the ratio $2:3$. If a flag is 12 feet long, what is its height?

"usa colorado flag clip art"
via OpenClipArt. Public Domain.

Unit 4, Lesson 2
Cool-down

2.5 Comparing Orange Juice Recipes

- Clare mixes $2\frac{1}{2}$ cups of water with $\frac{1}{3}$ cup of orange juice concentrate.

- Han mixes $1\frac{2}{3}$ cups of water with $\frac{1}{4}$ cup of orange juice concentrate.

Whose orange juice mixture tastes stronger? Explain or show your reasoning.

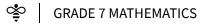NAME   DATE   PERIOD

Unit 4, Lesson 3
Cool-down

3.5 Walnuts in Bulk

It costs $3.45 to buy $\frac{3}{4}$ lb of chopped walnuts. How much would it cost to purchase 7.5 lbs of walnuts? Explain or show your reasoning.
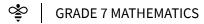
NAME   DATE   PERIOD

Unit 4, Lesson 4
Cool-down

4.5 Fruit Snacks and Skating

1. Tyler ate x fruit snacks, and Han ate $\frac{3}{4}$ less than that. Write an expression for the number of fruit snacks Han ate.

2. Mai skated x miles, and Clare skated $\frac{3}{5}$ farther than that. Write an expression for the distance Clare skated.

NAME   DATE   PERIOD
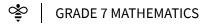
Unit 4, Lesson 5
Cool-down

5.5 Reading More

Kiran read for x minutes, and Andre read for $\frac{5}{8}$ more than that. Write an equation that relates the number of minutes Kiran read with y, the number of minutes that Andre read. Use decimals in your equation.

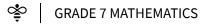NAME   DATE   PERIOD

Unit 4, Lesson 6
Cool-down

6.5 Fish Population

The number of fish in a lake decreased by 25% between last year and this year. Last year there were 60 fish in the lake. What is the population this year? If you get stuck, consider drawing a diagram.

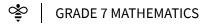NAME   DATE   PERIOD

Unit 4, Lesson 7
Cool-down

7.5 More Laundry Soap

A company claims that their new bottle holds 25% more laundry soap. If their original container held 53 fluid ounces of soap, how much does the new container hold?

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Unit 4, Lesson 8
Cool-down

8.5 Tyler's Savings Bond

Tyler's mom purchased a savings bond for Tyler. The value of the savings bond increases by 4% each year. One year after it was purchased, the value of the savings bond was $156. Find the value of the bond when Tyler's mom purchased it. Explain your reasoning.
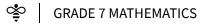
NAME   DATE   PERIOD

Unit 4, Lesson 9
Cool-down

9.5 Percentages of 75

Find each percentage of 75. Explain your reasoning.

1. What is 10% of 75?

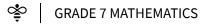2. What is 1% of 75?

3. What is 0.1% of 75?

4. What is 0.5% of 75?

NAME   DATE   PERIOD

Unit 4, Lesson 10
Cool-down

10.5 A Restaurant in a Different City

At a dinner, the meal cost $22 and a sales tax of $1.87 was added to the bill.

1. How much would the sales tax be on a $66 meal?
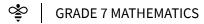
2. What is the tax rate for meals in this city?

NAME   DATE   PERIOD

Unit 4, Lesson 11
Cool-down

11.5 The Cost of a Bike

The bike store marks up the wholesale cost of all of the bikes they sell by 30%.

1. Andre wants to buy a bike that has a price tag of $125. What was the wholesale cost of this bike?

2. If the bike is discounted by 20%, how much will Andre pay (before tax)?

Unit 4, Lesson 12
Cool-down

12.4 Shoes on Sale

With a coupon, you can get a pair of shoes that normally costs $84 for only $72. What percentage was the discount?

NAME   DATE   PERIOD

Unit 4, Lesson 13
Cool-down

13.4 Off by a Little Bit?

Clare estimates that her brother is 4 feet tall. When they get measured at the doctor's office, her brother's height is 4 feet, 2 inches.

1. Should Clare's or the doctor's measurement be considered the actual height? Explain your reasoning.

2. What was the error, expressed in inches?

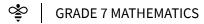3. What was the error, expressed as a percentage of the actual height?

NAME   DATE   PERIOD

Unit 4, Lesson 14
Cool-down

14.4 Jumbo Eggs

To be labeled as a jumbo egg, the egg is supposed to weigh 2.5 oz. Priya buys a carton of jumbo eggs and measures one of the eggs as 2.4 oz. What is the percent error?

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Unit 4, Lesson 15
Cool-down

15.4 An Angler's Dilemma

A fisherman weighs an ahi tuna (a very large fish) on a scale and gets a reading of 135 pounds. The reading on the scale may have an error of up to 5%. What are two possible values for the actual weight of the fish?