

4.4

Combining Percents

MathLinks 8, pages 144–149

Key Ideas Review

Match the method of calculating percent in column A with an example in column B.

A	B
1. To determine amounts that result from consecutive percent increases or decreases, percents of percents can be used. _____	a) 111% of $200 = 1.11 \times 200 = 222$
2. To calculate the increase in a number, multiply the original number by a single percent greater than 100. _____	b) 11% of $200 = 0.11 \times 200 = 22$ $200 + 22 = 222$
3. Percents can be combined by adding. _____	c) $5\% + 6\% = 11\%$
4. To calculate the increase in a number, add the percent change to the original number. _____	d) 20% of $50 = 10$ $50 - 10 = 40$ 20% of $40 = 8$ $40 - 8 = 32$

Practise and Apply

5. Estimate and then calculate each bill, including 13% in taxes.

- a) shirt \$39.20
jeans \$79.80
Estimate:

Calculation:

- b) 4 binders \$2.25 each
geometry set \$1.65
calculator \$10.35
Estimate:

Calculation:

- c) flashlight \$9.75
3-piece pliers \$11.95
super glue \$1.63
detergent \$7.67
Estimate:

Calculation:

- d) 2 toothpaste \$2.79 each
3 toothbrushes \$7.99 each
dental floss \$4.49
Estimate:

Calculation:

Name: _____

Date: _____

6. The Casa Della restaurant had 40 diners for lunch on Wednesday. Calculate the number of diners the next night if there was a 15% increase.

7. A clothing store had a 30% off sale one week. The next week, the sale offered another 20% off all jackets.

a) If the original price of a jacket was \$120, what was the price in the second week? Show your thinking.

b) Would a 50% off sale result in a lower price? Explain.

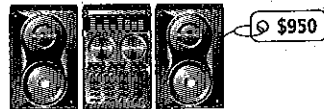
8. The Electronics for Less store has a 25% off sale on all cameras.

a) What is the sale price of a \$240 camera?

b) Find the total cost of the discounted camera including 5% GST and 6% PST. Show your thinking.

9. The White Chuck Glacier is in the Cascade Range of western North America. In 1958 it covered 3.1 km^2 . By 2002 it had lost about 70% of its area. What was the area of the glacier in 2002? Show your thinking.

10. Patrick has saved \$300 for a new stereo. He finds a \$950 stereo on sale for 30% off. If GST is 5% and the PST is 6%, how much money will Patrick have to borrow in order to buy this stereo? Show your thinking.



11. In Mr. Patterson's Math classes, 80% of his 110 students have their own calculators. How many of his students do not have their own calculators? Show your thinking.

12. Sofia started a new job that paid \$8/h. In the first two years she was guaranteed a pay raise of 10% every six months. What will be her hourly wage after one year? Show your thinking.