

Lesson 12 Assessment

Solving Problems Involving Coupons and Discounts

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Calculates the percent of an amount of money in one way

What is 20% of \$150?

Use a percent as a fraction.
20% is one-fifth.
So, 20% of \$150 is:
 $\$150 \div 5 = \30

Calculates the percent of an amount of money in more than one way

What is 20% of \$150?

Use mental math.
10% of \$150 is \$15.
So, 20% of \$150 is:
 $\$15 \times 2 = \30

Use a percent as a decimal.
20% is 0.20.
So, 20% of \$150 is:
 $0.20 \times \$150 = \30

Determines the better deal between a coupon and a percent discount

In a sale, there are two choices:

- a \$20 off coupon
- a 15% discount

Which is the better deal for an item with a regular price of \$80?

Sale price with the coupon:

$$\$80 - \$20 = \$60$$

Sale price with the discount:

$$85\% \text{ of } \$80$$

$$= 0.85 \times \$80$$

$$= \$68$$

The coupon provides the better deal.

Flexibly solves problems involving coupons and/or percent discounts

Chris collects vinyl records. Chris's favourite music store has a 25% off sale. As a frequent customer, Chris receives an additional 15% off the sale price of any record. How much does Chris pay for a record with a regular price of \$36?

The first discount for the record is:

$$25\% \text{ of } \$36 = \$36 \div 4, \text{ or } \$9$$

The sale price before the frequent customer discount is:

$$\$36 - \$9 = \$27$$

The frequent customer discount is:

$$15\% \text{ of } \$27 = 0.15 \times \$27, \text{ or } \$4.05$$

So, the final sale price is:

$$\$27 - \$4.05 = \$22.95$$

Observations/Documentation