Warm-up

Georgie can generally complete 3 math assignments in 50 minutes. How much time will she spend in total on a class that has 40 assignments? Give your answer rounded to the nearest HOUR.

Unit 13
Ratios and Percentages, Real World Applications

Math Essentials

Practice 13.1

1. Rewrite the percentage as a decimal.

   Last year, 2% of the used cars they sold had over 20,000 miles.

2. Rewrite the decimal as a percentage.

   The model was 0.761 of the size that the original was.

   ALEKS

Practice 13.2

1. What is 52% of 45?

Translating to Proportions

Translate this statement to a proportion:

60% of 25 is 15

$$\frac{60}{100} = \frac{15}{25}$$

Translating to Proportions

$$60\% \quad \frac{60}{100} = \frac{15}{25} \quad \begin{matrix} 15 \\ of \\ 25 \end{matrix}$$

$$\frac{percent}{100} = \frac{amount}{base} \text{ (look for "of")}$$

Practice 13.2

1. What is 52% of 45?
2. What is 40% of 84?
3. What is 65% of 51?

ALEKS

Practice 13.3

Answer the following questions.

1. What percent of 80 is 68?
2. 33 is 75% of what?

ALEKS

Practice 13.4

Answer the following questions.

1. 32.76 is what percent of 10.5?
2. What is 55% of 19.6?

ALEKS

Practice 13.5

Lamar ran for president of the chess club, and he received 22 votes. There were 40 members in the club. What percentage of the club members voted for Lamar?

ALEKS

Practice 13.6

	E-Mail account	No e-mail account
Computer access at home	45	12
No computer access at home	12	81

In a survey, 150 shoppers were asked whether they have access to a computer at home and if they have a personal e-mail account.

1. What percentage of the shoppers have an email account?
2. What percentage of the shoppers have computer access at home?

ALEKS

Extra Practice

1. Convert 5.4% to a decimal.
2. Convert $\frac{7}{28}$ to a percent.
3. 7 is 14% of what number?

Practice 13.7

A file that is 266 megabytes is being downloaded. If the download is 12.1% complete, how many megabytes have been downloaded? Round your answer to the nearest tenth.

ALEKS
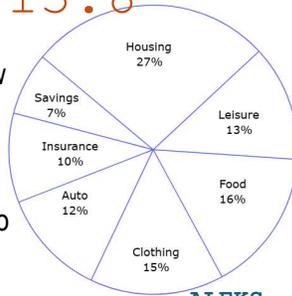
Practice 13.8

The circle graph shows how a family budgets its annual income. If the total annual income is $105,000, what amount is budgeted for Auto expenses?

Housing 27%
Savings 7%
Leisure 13%
Insurance 10%
Food 16%
Auto 12%
Clothing 15%

ALEKS

Practice 13.9

In a recent year, 38% of all college students were enrolled part-time. If 3.4 million college students were enrolled part-time that year, what was the total number of college students?

Round your answer to the nearest million.

ALEKS

Practice 13.10

The price of an item has been reduced by 25%. The original price was $15. What is the sale price?

ALEKS

Practice 13.11

An item on sale costs 40% of the original price. If the original price was $70, what is the sale price?

ALEKS

Practice 13.12

A table is on sale for $465, which is 62% of the regular price.

What is the regular price?

ALEKS