## Lesson 6.1 Assignment

NAME
DATE

## Percents Can Make or Break You!

## Introduction to Percents

Shade each hundredths grid to represent the percent. Then, write the equivalent fraction and decimal.

1. $32 \%$
2. $85 \%$



Each hundredths grid represents a whole. Write the shaded part as a fraction, decimal, and percent.
3.

4.


## Lesson 6.1 Assignment

Write each decimal as a percent.
5. 0.61
6. 0.7
7. 0.555
8. Describe how to easily write a decimal as a percent.
9. Label each mark on the number line with a fraction, decimal, and percent. Make sure your fractions are in simplest form.

10. The table shows the portions of sixth graders at your school who have each number of siblings. Complete the table by representing each portion as a ratio, a fraction, a decimal, and a percent. Make sure your fractions and ratios are in simplest form.

| Number of Siblings | Ratio | Fraction | Decimal | Percent |
| :---: | :---: | :---: | :---: | :---: |
| 0 |  | $\frac{3}{20}$ |  |  |
| 1 | $3: 8$ |  |  | $20 \%$ |
| 2 |  |  |  |  |
| 3 |  | $\frac{7}{200}$ |  |  |
| 4 or more |  |  |  |  |

## Lesson 6.2 Assignment

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## Wacky Weather!

## Estimating Percents

1. A community theater is trying to raise money for a new marquee.

The shaded region on the sign posted in front of the theater shows the progress so far. Estimate the theater's progress toward its goal as a percent.

2. The students at Penncrest Middle School sold various products for a fall fundraiser. The table shows the percent of profit the school earned and the total amount sold for each type of product.

| Product | Percent Profit | Amount Sold |
| :--- | :---: | :---: |
| Candy | $65 \%$ | $\$ 6400$ |
| Wrapping paper | $40 \%$ | $\$ 1200$ |
| Stationery | $50 \%$ | $\$ 900$ |
| Calendars | $25 \%$ | $\$ 3120$ |

a. Use benchmark percents to calculate how much profit the school earned on candy.

Show your work.
b. Use benchmark percents to calculate how much profit the school made on wrapping paper. Show your work.
c. Use benchmark percents to calculate how much profit the school earned on stationery. Explain your reasoning using complete sentences.
d. Use benchmark percents to calculate how much profit the school earned on calendars. Explain your reasoning using complete sentences.
e. How much total profit did Penncrest Middle School earn during its fall fundraiser?

Show your work.
f. The school newspaper reported that the students sold $\$ 11,620$ worth of products and earned the school about $50 \%$ profit. Was the newspaper report accurate? Explain.

## Lesson 6.3 Assignment

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## It's All in the Follow-Through Determine the Percent of a Number

Mr. Hawkins manages a small store called Action Sporting Goods. He works with percents a lot when planning store sales and calculating sales tax, but he also uses percents for his management duties.

1. Mr. Hawkins wants to make sure that his store is stocked with enough equipment for all of the community sports. He surveys 240 of his customers and asks them to choose the one sport that they're most likely to buy sports equipment for this season.

| Sport | Percent of Responses |
| :--- | :---: |
| Basketball | $30 \%$ |
| Baseball | $20 \%$ |
| Football | $35 \%$ |
| Wrestling | $15 \%$ |

a. How many of his customers will need baseball equipment?
b. How many of his customers will need wrestling equipment?
c. How many of his customers will need football equipment?
d. How many of his customers will need basketball equipment?
2. Mr. Hawkins is going to put his golf equipment on sale at the end of the summer. A set of junior golf clubs at Action Sporting Goods costs $\$ 180$. Use a double number line to represent the discount available for each percent.

3. Salespeople at Action Sporting Goods get a $20 \%$ employee discount on all full-price items they purchase. An employee named Erik buys a football jersey priced at $\$ 119$.
a. How much is Erik's discount on the football jersey? Show your work.
b. How much does Erik have to pay for the football jersey before tax? Show your work.
c. Explain how to find Erik's discounted price for the football jersey in only one step.
4. Action Sporting Goods has a merchant service provider that allows the store to accept credit and debit cards for purchases. This provider charges the store a fee of $3 \%$ on all credit and debit sales. Mr. Hawkins double checks the charges from the merchant services provider each month. Last month, the store's credit and debit sales totaled $\$ 12,950$. What fee should Mr. Hawkins expect to pay the merchant service provider? Show your work.
5. Each month Mr. Hawkins must send a payment for state sales tax. The tax is $6 \%$ of the store's taxable sales. The store's taxable sales total for last month was $\$ 13,487$.
a. How much is the state sales tax for last month? Show your work.
b. The state gives a $1 \%$ discount on the sales tax due if it is paid on time. How much is the discount? Show your work.
c. Mr. Hawkins plans to send his sales tax payment in before it is due to receive the $1 \%$ discount. How much does Mr. Hawkins have to send for last month's sales tax? Show your work.

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## Mi Mi Mi Mi Mi Mi Mi! <br> Determine the Part, Whole, or Percent of Percent Problems

Basketball is a popular sport at Union Middle School for both boys and girls.

1. At Union Middle School, 99 boys, or $36 \%$ of the boys, play basketball.
a. How many boys attend Union Middle School? Show your work.
b. Of the 99 boys who play basketball, 37 are sixth graders. What percent of the boy basketball players are sixth graders? Show your work and round your answer to the nearest percent.
c. Of the 99 boys who play basketball, 32 are seventh graders. What percent of the boy basketball players are seventh graders? Show your work and round your answer to the nearest percent.
d. Of the 99 boys who play basketball, 30 are eighth graders. What percent of the boy basketball players are eighth graders? Show your work and round your answer to the nearest percent.
e. Notice that the number of players and the percents for each grade of boys are the same.

Explain why this is the case.
2. At Union Middle School, 55 girls, or $22 \%$ of the girls, play basketball.
a. How many girls attend Union Middle School? Show your work.
b. Of the 55 girls who play basketball, 25 are sixth graders. What percent of the girl basketball players are sixth graders? Show your work and round your answer to the nearest percent.

## Lesson 6.5 Assignment

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## Practical Percents Practice!

## Using Percents in Real-World Situations

Kendall and Kasey haven't seen each other in months! They decide to meet for dinner. During the meal, Kasey tells Kendall all about her new job at The Foot Parade.

1. Kasey tells Kendall about some of the perks of her new job. "We sell the coolest, most stylish shoes, and I get a $35 \%$ employee discount on anything I buy!"
a. How much would Kasey pay for a $\$ 75$ pair of shoes?
b. How much would Kasey pay for a $\$ 120$ pair of boots?
c. If Kasey got a $\$ 5.25$ discount on her new flip-flops, how much did they cost originally?
2. "Does The Foot Parade have a lot of shoes to choose from?" Kendall asks Kasey. "We have 675 pairs of shoes in stock!" Kasey replies.
a. If The Foot Parade has 105 pairs of hiking boots in stock, what percent of their shoe selection is hiking boots? Round your answer to the nearest percent.
b. If The Foot Parade has 75 pairs of flip-flops in stock, what percent of their shoe selection is flip-flops? Round your answer to the nearest percent.
3. "That sounds like an awesome job!" Kendall replies. "But, is the pay any good?" Kasey explains that she is paid on commission; she earns $17 \%$ commission on her sales.
a. If Kasey sold $\$ 550$ worth of shoes during her shift yesterday, how much money did she earn?
b. If Kasey earned $\$ 140.25$ last Friday, what was the total amount of her sales?
4. "You should come shopping there next weekend," says Kasey. "We're having a great sale-40\% off everything."
a. If Kendall buys a $\$ 35$ pair of shoes next weekend, how much will she pay after the $6 \%$ sales tax?
b. If Kendall buys a $\$ 90$ pair of hiking boots next weekend, how much will she pay after the $6 \%$ sales tax?
5. After a long dinner together, the waitress arrives with the check. Kasey agrees to pay the $\$ 38$ bill, and Kendall offers to pay the tip.
a. What is the total cost, including gratuity, if Kendall wants to give the waitress a $25 \%$ tip?
b. What is the total cost, including gratuity, if Kendall wants to give the waitress a $20 \%$ tip?

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