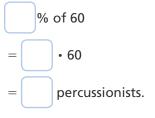Name: _____

3-1 Additional Practice

Leveled Practice In **1–2**, fill in the boxes to solve.

1. A school orchestra has 60 members. 20% of the members are percussionists. How many orchestra members are percussionists?
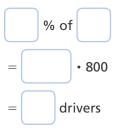
20% · 60 players

The number of percussionists is

⬜% of 60

= ⬜ · 60

= ⬜ percussionists.

2. Of 800 cars that drove on a street during a week, 0.75% exceeded the 25 miles per hour speed limit by more than 10 miles per hour. How many cars drove over 35 miles per hour?

The number of cars driving over 35 miles per hour is

⬜% of ⬜

= ⬜ · 800

= ⬜ drivers

3. An item sells for $40. The sales tax on the item is 8%. What is the sales tax and total cost?

4. When a bush was first planted in a garden, it was 12 inches tall. After two weeks, it was 120% as tall as when it was first planted. How tall was the bush after the two weeks?

5. The number of students in the marching band this year is 125% as many as the number of students in the marching band last year. If there were 36 students in the marching band last year, how many students are in the marching band this year?

6. Joel earns a commission of 5% on the audio equipment he sells, and the store keeps the rest. He sells a $750 amplifier.

   a. How much commission does Joel earn from the sale?

   b. How much does the store keep?

7. Nixon estimates it will take him 5 hours to finish an art project. It actually takes him 320% of the time estimated. How many hours did it take him to finish the project?

8. A contaminant is found in a solution at a level of $\frac{3}{500}$%. What fraction of the solution is this?

9. A bike shop sells you a bicycle for $63 and a helmet for $21. The total cost is 150% of what the shop spent originally.

a. How much did the shop spend originally?

b. How much profit did the bike shop earn by selling the bicycle and helmet to you?

10. A newspaper reporter wrote an article about the amount of a toxin found in a river near a factory. In the article, the reporter incorrectly used 0.25 as the decimal form of $\frac{1}{4}$%.

a. What is the correct way to write $\frac{1}{4}$% as a decimal?

b. Reasoning What was the reporter's likely error? © MP.2

11. Allie and Sam are ophthalmologists. Allie found that 40% of the 170 patients she saw in a week were near-sighted. Sam found that 25% of the 236 patients he saw in a week were near-sighted.

a. How many of the patients Allie saw were near-sighted?

b. How many of the patients Sam saw were near-sighted?

12. Higher Order Thinking Kevin's car can go 315 miles on one tank of gas. He used just under 40% of a full tank of gas to get to a sporting event, traveling at an average speed of 60 miles an hour. About how long did it take him to get there? How did you decide?

© Assessment Practice

13. A large university accepts 70% of the students who apply. Of the students the university accepts, 25% actually enroll. If 20,000 students apply, how many actually enroll?

14. Krystine has a weekend job advertising an upcoming play. She has two options for being paid. Option A is an hourly wage of $7.00. Option B is a 5% commission on all money made at the play. She plans to work 8 hours each day on Saturday and Sunday. Krystine estimates the play will make about $2,100 this weekend. Which option gives Krystine more earnings this weekend?

Ⓐ Both options give Krystine the same amount of earnings.

Ⓑ Option A gives Krystine more earnings this weekend.

Ⓒ Option B gives Krystine more earnings this weekend.