

# Test, Form 3B

1. Clea attends music lessons every 2 weeks, dance class every 3 weeks, and has a dental appointment every 6 weeks. If she attended all three this week, when will she attend all three again?

1. in 6 weeks

2. In a certain theater, there are 16 empty seats out of 240 total seats. Write the ratio of empty seats to total seats as a fraction in simplest form. Then explain its meaning.

$\frac{1}{15}$ ; For every  
empty seat  
there are 15  
filled seats.

3. Students in a sixth grade class were asked which team was their favorite. The results are shown in the table. Find the ratio of students who preferred the Buccaneers to the total number of responses.

Favorite Sports Teams	
Teams	Number of Students
Tigers	35
Panthers	45
Buccaneers	74
Aviators	52

3.  $\frac{37}{103}$

4. On his shelves, Trenton had 15 biographies, 15 science fiction books, 7 reference books, and 11 mystery books. Find the ratio of biographies to the total number of books.

4.  $\frac{5}{16}$

**Write each ratio as a unit rate.**

5. 424 kilometers in 8 hours

5.  $\frac{54.5 \text{ km}}{1 \text{ h}}$

6. \$60 for 12 months

6.  $\frac{\$5.50}{1 \text{ month}}$

7. 192 hot dogs in 24 minutes

7.  $\frac{8 \text{ hot dogs}}{1 \text{ minute}}$

# Test, Form 3B *(continued)*

For Exercises 8 and 9, use the ratio table given to solve each problem.

8. Daurie rides on her motorcycle for 252 miles on 6 gallons of gas. At this rate, how far will she get on 2 gallons of gas?

Distance (mi)	■	252
Gasoline (gal)	2	6

8. 84 mi

9. Casey took 25 tests in 135 days. At this rate, in how many days will she take another 10 tests?

Days	135		■
Tests	25		10

9. 54 days

10. After working for 24 hours, Zoe made \$234. After working for 40 hours, Zoe made \$390. Predict how much she would make after 10 hours of work.

10. \$97.50

11. Determine if the rates \$24 for 6 hours of work and \$36 for 8 hours of work are equivalent. Explain your reasoning.

No; the unit rates are not the same,  
 11.  $\frac{\$4}{1\text{h}}$  and  $\frac{\$4.50}{1\text{h}}$

12. Suppose 90 out of 120 people said they like to work out and 5 out of every 18 of the people who like to work out have a gym membership. At the same rates, in a group of 216 people, predict how many you would expect to have a gym membership.

12. 45 people

13. Mrs. Davis bought 6 pounds of grapes for \$18. At this rate, how much would 72 ounces of grapes have cost?

13. \$13.50

14. Jack's plant grew 50 inches in 100 weeks. At this rate, how much did it grow in 210 days?

14. 15 in.

15. Octavia can type 60 words per minute. Write the ordered pairs (number of minutes, number of words) for Octavia typing for 0, 1, 2, and 3 minutes.

(0, 0), (1, 60),  
 (2, 120),  
 15. (3, 180)