

Enrich

Percent and Per Mill

A **percent** is a ratio that compares a number to 100.

$$\frac{83}{100} = 83 \text{ percent} = 83\% = 0.83$$

A ratio that compares a number to 1,000 is called a **per mill**. Just like percent, the ratio *per mill* has a special symbol, ‰.

$$\frac{83}{1,000} = 83 \text{ per mill} = 83‰ = 0.083$$

Throughout the world, the ratio that is used most commonly is percent. However, in some countries, you will find both ratios in use.

Express each per mill as a decimal.

1. 325‰

2. 71‰

3. 6‰

4. 900‰

5. 20‰

6. 100‰

Express each per mill as a fraction in simplest form.

7. 47‰

8. 400‰

9. 100‰

10. 25‰

11. 150‰

12. 30‰

Express each fraction as a per mill.

13. $\frac{729}{1,000}$

14. $\frac{58}{100}$

15. $\frac{7}{10}$

16. $\frac{1}{2}$

17. $\frac{3}{4}$

18. $\frac{5}{8}$

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

20. $\frac{17}{20}$

21. $\frac{1}{3}$

- 22. CHALLENGE** In the United States, you will sometimes find the **mill** used as a monetary unit. What amount of money do you think is represented by 1 mill?