

Practice

Find the unit price.

1. \$4.50 for 5 pens
2. \$17.80 for 10 floppy disks
3. \$6.60 for 4 L of milk
4. 12 bread rolls for \$2.88
5. 120 g of tuna for \$2.40
6. 14 L of spring water for \$12.46

Find the unit price. Round to the nearest tenth of a cent, if necessary.

7. \$2.79 for 400 g of breakfast cereal
8. 24 cans of soda for \$8.99
9. 10 kg of flour for \$5.88
10. \$2.49 for 750 g of yogurt

Find the unit rate.

11. keyboarding 520 words in 10 min
12. driving 180 km in 4 h
13. using 200 mL of toothpaste in 8 weeks
14. sharing 6 pizzas among 8 students

Problems and Applications

15. Fruit juice is advertised at \$5.99 for 8 packages. Each package contains 3 boxes. What is the unit price per box, to the nearest cent?

Some stores quote unit prices in terms of 100-g or 100-mL units. Find the price of 100 g or 100 mL of each product. Round to the nearest tenth of a cent, if necessary.

16. pasta at \$0.99 for 900 g
17. 1 kg of peanut butter for \$3.99
18. \$3.24 for 400 mL of salad dressing
19. 500 mL of olive oil for \$6.49
20. Athena earned \$105.00 for 12 h of cutting lawns. Brad earned \$126.75 for 15 h of packing groceries. Who had the higher rate of pay and by how much?

21. In 667 games, Michael Jordan scored 21 541 points. In 1560 games, Kareem Abdul-Jabbar scored 38 387 points. Who scored points at the greater rate per game?

22. Runner Nicki Knapp became Canadian women's 800-m champion in 2 min 4.23 s. Angela Chalmers became the 1500-m champion in 4 min 15.31 s. Who ran faster?

23. At top speed, an elephant can run at about 40 km/h. The fastest human can run 100 m in about 10 s. Which can run faster, an elephant or a human?

24. If 500 people live in a village with an area of 5 km², the unit rate or population density is 100 people/km². Dauphin, Manitoba, has an area of 12 km². Swift Current, Saskatchewan, has an area of 21 km². When the population of Dauphin was about 9000, the population of Swift Current was about 15 000. How did the population densities of these communities compare?

25. Predict which is the better buy. Compare your predictions with a classmate's. Then, check your predictions by calculating which is the better buy.

25. 8 granola bars for \$1.89 or 12 for \$2.89

26. \$13.00 for 10 bus tokens or \$4.50 for 3 tokens

27. \$2.19 for 48 tea bags or \$3.39 for 72 tea bags

28. 1 L of orange juice for \$1.99 or 1.36 L for \$2.49

29. \$2.75 for 283 g of curry sauce or \$3.48 for 380 g

30. 200 sheets of paper for \$1.98 or 500 sheets for \$4.49

31. Write a problem that involves the comparison of 2 unit rates. Have a classmate solve your problem.