

Finding the Unit Rate

Name: _____ Date: _____ Score: _____ / 24

Q Quick Review

A **unit rate** tells you the amount for *exactly one* of something — one hour, one pound, one ticket. To find a unit rate, **divide the first quantity by the second**. For “120 miles in 3 hours,” divide $120 \div 3 = 40$, so the unit rate is 40 miles per hour. Unit rates make it easy to **compare deals**: if one pack costs \$0.50 per pencil and another costs \$0.40 per pencil, the second is the better buy. A unit rate always has a 1 in the denominator.

◇ **Example:** A store sells 4 pounds of apples for \$12. Find the unit price.

⇒ A unit price is the cost for just *one* pound. To find it, we divide the total cost by the number of pounds: $\$12 \div 4$ pounds. That gives \$3 per pound. Here is a helpful check: if one pound is \$3, then 4 pounds would be $4 \times \$3 = \12 , which matches. So the unit price is \$3 per pound.

Answer: \$3 per pound

PRACTICE

Find each unit rate.

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|------------------------------|-------|---------------------------------|-------|
| 1. 120 miles in 3 hours | _____ | 11. 144 cookies in 12 trays | _____ |
| 2. \$12 for 4 pounds | _____ | 12. \$56 for 8 pounds | _____ |
| 3. 150 words in 5 minutes | _____ | 13. 270 miles in 6 hours | _____ |
| 4. 240 kilometers in 4 hours | _____ | 14. 132 liters in 11 minutes | _____ |
| 5. 96 ounces in 8 cups | _____ | 15. \$63 for 7 shirts | _____ |
| 6. 350 miles on 7 gallons | _____ | 16. 200 steps in 4 minutes | _____ |
| 7. 18 dollars for 3 hours | _____ | 17. 168 miles in 8 hours | _____ |
| 8. 100 meters in 8 seconds | _____ | 18. \$90 for 12 sandwiches | _____ |
| 9. \$45 for 9 tickets | _____ | 19. 315 apples in 9 crates | _____ |
| 10. 84 pages in 6 hours | _____ | 20. 216 heartbeats in 3 minutes | _____ |

◆ Word Problems

21. A 6-pack of juice boxes costs \$5.40. What is the cost per juice box? _____
22. Maya runs 12 miles in 2 hours. At this rate, how many miles does she run per hour? _____
23. Brand A sells 8 markers for \$4.00, and Brand B sells 5 markers for \$3.00. Which brand has the lower unit price? _____
24. A landscaping crew plants 96 flowers in 8 garden beds, sharing them equally. How many flowers go in each bed? _____



Answer Keys

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| <p>1. 40 mi/h</p> <p>2. \$3 per pound</p> <p>3. 30 words/min</p> <p>4. 60 km/h</p> <p>5. 12 oz/cup</p> <p>6. 50 mi/gal</p> <p>7. \$6 per hour</p> <p>8. 12.5 m/s</p> <p>9. \$5 per ticket</p> <p>10. 14 pages/h</p> <p>11. 12 cookies/tray</p> <p>12. \$7 per pound</p> | <p>13. 45 mi/h</p> <p>14. 12 L/min</p> <p>15. \$9 per shirt</p> <p>16. 50 steps/min</p> <p>17. 21 mi/h</p> <p>18. \$7.50 per sandwich</p> <p>19. 35 apples/crate</p> <p>20. 72 beats/min</p> <p>21. \$0.90 per juice box</p> <p>22. 6 miles per hour</p> <p>23. Brand A (\$0.50 vs. \$0.60 per marker)</p> <p>24. 12 flowers per bed</p> |
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Step-by-Step Explanations

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| <p>1. Divide $120 \div 3 = 40$ miles per hour.</p> <p>2. Divide $12 \div 4 = 3$ dollars per pound.</p> <p>3. Divide $150 \div 5 = 30$ words per minute.</p> <p>4. Divide $240 \div 4 = 60$ kilometers per hour.</p> <p>5. Divide $96 \div 8 = 12$ ounces per cup.</p> <p>6. Divide $350 \div 7 = 50$ miles per gallon.</p> <p>7. Divide $18 \div 3 = 6$ dollars per hour.</p> <p>8. Divide $100 \div 8 = 12.5$ meters per second.</p> <p>9. Divide $45 \div 9 = 5$ dollars per ticket.</p> <p>10. Divide $84 \div 6 = 14$ pages per hour.</p> <p>11. Divide $144 \div 12 = 12$ cookies per tray.</p> <p>12. Divide $56 \div 8 = 7$ dollars per pound.</p> | <p>13. Divide $270 \div 6 = 45$ miles per hour.</p> <p>14. Divide $132 \div 11 = 12$ liters per minute.</p> <p>15. Divide $63 \div 7 = 9$ dollars per shirt.</p> <p>16. Divide $200 \div 4 = 50$ steps per minute.</p> <p>17. Divide $168 \div 8 = 21$ miles per hour.</p> <p>18. Divide $90 \div 12 = 7.5$, so \$7.50 per sandwich.</p> <p>19. Divide $315 \div 9 = 35$ apples per crate.</p> <p>20. Divide $216 \div 3 = 72$ beats per minute.</p> <p>21. Divide the total by the number of boxes: $\\$5.40 \div 6 = \\0.90 per juice box.</p> <p>22. Divide miles by hours: $12 \div 2 = 6$. Maya runs 6 miles each hour.</p> <p>23. Brand A: $\\$4.00 \div 8 = \\0.50 per marker. Brand B: $\\$3.00 \div 5 = \\0.60 per marker. Brand A is cheaper per marker.</p> <p>24. Divide flowers by beds: $96 \div 8 = 12$. Each bed gets 12 flowers.</p> |
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