

Converting Measurement Units

Name: _____

Date: _____

Score: _____ / 24

Q Quick Review

You can **convert measurement units** by multiplying or dividing using a known relationship. Useful facts: 1 foot = 12 inches, 1 yard = 3 feet, 1 pound = 16 ounces, 1 gallon = 4 quarts, 1 hour = 60 minutes, 1 kilometer = 1000 meters, 1 meter = 100 centimeters, 1 liter = 1000 milliliters. To go from a **bigger unit to a smaller one**, multiply (there will be more of them). To go from a **smaller unit to a bigger one**, divide.

◇ **Example:** Convert 3 feet to inches.

⇒ We are going from a bigger unit (feet) to a smaller unit (inches), so we expect a larger number and we multiply. The relationship is 1 foot = 12 inches. Multiply the number of feet by 12: $3 \times 12 = 36$. So 3 feet equals 36 inches. It makes sense that there are more inches than feet, since inches are smaller.

Answer: 36 inches

PRACTICE

Convert each measurement.

- | | | | |
|------------------|-------|---------------------|-------|
| 1. 3 ft = □ in | _____ | 11. 7 days = □ h | _____ |
| 2. 2.5 km = □ m | _____ | 12. 3 m = □ cm | _____ |
| 3. 48 in = □ ft | _____ | 13. 10 qt = □ gal | _____ |
| 4. 5000 m = □ km | _____ | 14. 1.5 ft = □ in | _____ |
| 5. 3 lb = □ oz | _____ | 15. 5 km = □ m | _____ |
| 6. 2 gal = □ qt | _____ | 16. 6 ft = □ yd | _____ |
| 7. 180 min = □ h | _____ | 17. 2 h = □ min | _____ |
| 8. 4 yd = □ ft | _____ | 18. 64 oz = □ lb | _____ |
| 9. 2.5 L = □ mL | _____ | 19. 8 pt = □ qt | _____ |
| 10. 96 oz = □ lb | _____ | 20. 2000 lb = □ ton | _____ |

◆ Word Problems

21. A ribbon is 4 yards long. How many feet of ribbon is that? _____
22. A water bottle holds 2.5 liters. How many milliliters does it hold? _____
23. A bag of dog food weighs 96 ounces. How many pounds does it weigh? _____
24. A car trip lasts 180 minutes. How many hours long is the trip? _____



Answer Keys

- | | |
|--------------------------------------|---|
| 1. <input type="text" value="36"/> | 13. <input type="text" value="2.5"/> |
| 2. <input type="text" value="2500"/> | 14. <input type="text" value="18"/> |
| 3. <input type="text" value="4"/> | 15. <input type="text" value="5000"/> |
| 4. <input type="text" value="5"/> | 16. <input type="text" value="2"/> |
| 5. <input type="text" value="48"/> | 17. <input type="text" value="120"/> |
| 6. <input type="text" value="8"/> | 18. <input type="text" value="4"/> |
| 7. <input type="text" value="3"/> | 19. <input type="text" value="4"/> |
| 8. <input type="text" value="12"/> | 20. <input type="text" value="1"/> |
| 9. <input type="text" value="2500"/> | 21. <input type="text" value="12 feet"/> |
| 10. <input type="text" value="6"/> | 22. <input type="text" value="2500 milliliters"/> |
| 11. <input type="text" value="168"/> | 23. <input type="text" value="6 pounds"/> |
| 12. <input type="text" value="300"/> | 24. <input type="text" value="3 hours"/> |

Step-by-Step Explanations

- | | |
|--|---|
| <p>1. Multiply by 12: $3 \times 12 = 36$ inches.</p> <p>2. Multiply by 1000: $2.5 \times 1000 = 2500$ meters.</p> <p>3. Divide by 12: $48 \div 12 = 4$ feet.</p> <p>4. Divide by 1000: $5000 \div 1000 = 5$ kilometers.</p> <p>5. Multiply by 16: $3 \times 16 = 48$ ounces.</p> <p>6. Multiply by 4: $2 \times 4 = 8$ quarts.</p> <p>7. Divide by 60: $180 \div 60 = 3$ hours.</p> <p>8. Multiply by 3: $4 \times 3 = 12$ feet.</p> <p>9. Multiply by 1000: $2.5 \times 1000 = 2500$ milliliters.</p> <p>10. Divide by 16: $96 \div 16 = 6$ pounds.</p> <p>11. Multiply by 24: $7 \times 24 = 168$ hours.</p> <p>12. Multiply by 100: $3 \times 100 = 300$ centimeters.</p> | <p>13. Divide by 4: $10 \div 4 = 2.5$ gallons.</p> <p>14. Multiply by 12: $1.5 \times 12 = 18$ inches.</p> <p>15. Multiply by 1000: $5 \times 1000 = 5000$ meters.</p> <p>16. Divide by 3: $6 \div 3 = 2$ yards.</p> <p>17. Multiply by 60: $2 \times 60 = 120$ minutes.</p> <p>18. Divide by 16: $64 \div 16 = 4$ pounds.</p> <p>19. There are 2 pints in a quart, so $8 \div 2 = 4$ quarts.</p> <p>20. There are 2000 pounds in a ton, so $2000 \div 2000 = 1$ ton.</p> <p>21. Yards to feet means multiplying by 3: $4 \times 3 = 12$ feet.</p> <p>22. Liters to milliliters means multiplying by 1000: $2.5 \times 1000 = 2500$ mL.</p> <p>23. Ounces to pounds means dividing by 16: $96 \div 16 = 6$ pounds.</p> <p>24. Minutes to hours means dividing by 60: $180 \div 60 = 3$ hours.</p> |
|--|---|



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