| | Ratio | Set-Up | Place "x" | Solve for "x" | Simpified |
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| 1. | $\dfrac{\text{number of calculators}}{\text{cost}}$ | $\dfrac{10}{140}=\dfrac{8}{x}$ | $\dfrac{x}{140}=\dfrac{8}{10}$ | $x=\dfrac{8\cdot140}{10}$ | $x=112$ dollars |
| 2. | $\dfrac{\text{number of bags}}{\text{number of candies}}$ | $\dfrac{5}{90}=\dfrac{17}{x}$ | $\dfrac{x}{90}=\dfrac{17}{5}$ | $x=\dfrac{17\cdot90}{5}$ | $x=306$ candies |
| 3. | $\dfrac{\text{number of disks}}{\text{cost}}$ | $\dfrac{25}{5.50}=\dfrac{16}{x}$ | $\dfrac{x}{5.50}=\dfrac{16}{25}$ | $x=\dfrac{16\cdot5.50}{25}$ | $x=3.52$ dollars |
| 4. | $\dfrac{\text{number of tickets}}{\text{cost}}$ | $\dfrac{5}{40}=\dfrac{23}{x}$ | $\dfrac{x}{40}=\dfrac{23}{5}$ | $x=\dfrac{23\cdot40}{5}$ | $x=180$ dollars |
| 5. | $\dfrac{\text{number of liters}}{\text{cost (pounds)}}$ | $\dfrac{10}{8.20}=\dfrac{38}{x}$ | $\dfrac{x}{8.20}=\dfrac{38}{10}$ | $x=\dfrac{38\cdot8.20}{10}$ | $x=31.16$ pounds |
| 6. | $\dfrac{\text{amount of flour (grams)}}{\text{number of loaves}}$ | $\dfrac{1800}{3}=\dfrac{x}{25}$ | $\dfrac{x}{25}=\dfrac{1800}{3}$ | $x=\dfrac{1800\cdot25}{3}$ | $x=15000$ grams |
| 7. | $\dfrac{\text{number of stickers}}{\text{cost (pence)}}$ | $\dfrac{21}{84}=\dfrac{11}{x}$ | $\dfrac{x}{84}=\dfrac{11}{21}$ | $x=\dfrac{11\cdot84}{21}$ | $x=44$ stickers |
| 8. | $\dfrac{\text{number of glasses}}{\text{amount of water (ml)}}$ | $\dfrac{3}{600}=\dfrac{12}{x}$ | $\dfrac{x}{600}=\dfrac{12}{3}$ | $x=\dfrac{12\cdot600}{3}$ | $x=2400$ ml |
| 9. | $\dfrac{\text{length of rope (m)}}{\text{cost (pounds)}}$ | $\dfrac{20}{14.40}=\dfrac{12}{x}$ | $\dfrac{x}{14.40}=\dfrac{12}{20}$ | $x=\dfrac{12\cdot14.40}{20}$ | $x=8.64$ pounds |
| 10. | $\dfrac{\text{number of busses}}{\text{number of passengers}}$ | $\dfrac{3}{162}=\dfrac{7}{x}$ | $\dfrac{x}{162}=\dfrac{7}{3}$ | $x=\dfrac{7\cdot162}{3}$ | $x=378$ passengers |
| 11. | $\dfrac{\text{number of blocks}}{\text{total mass (kg)}}$ | $\dfrac{200}{1460}=\dfrac{900}{x}$ | $\dfrac{x}{1460}=\dfrac{900}{200}$ | $x=\dfrac{900\cdot1460}{200}$ | $x=6570$ kg |
| 12. | $\dfrac{\text{number of pencils}}{\text{cost}}$ | $\dfrac{2}{1.50}=\dfrac{x}{9.00}$ | $\dfrac{x}{9.00}=\dfrac{2}{1.50}$ | $x=\dfrac{2\cdot9.00}{1.50}$ | $x=12$ pencils |

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| 13. | $\dfrac{\text{number of meters}}{\text{number of seconds}}$ | $\dfrac{100}{15}=\dfrac{1}{x}$ | $\dfrac{x}{15}=\dfrac{1}{100}$ | $x=\dfrac{15\cdot 1}{100}$ | $x=.15$ seconds |
| 14. | $\dfrac{\text{number of miles}}{\text{number of hours}}$ | $\dfrac{125}{3}=\dfrac{x}{5}$ | $\dfrac{x}{5}=\dfrac{125}{3}$ | $x=\dfrac{5\cdot 125}{3}$ | $x=208.3$ miles |
| 15. | $\dfrac{\text{number of inches}}{\text{number of feet}}$ | $\dfrac{1}{5}=\dfrac{3.4}{x}$ | $\dfrac{x}{5}=\dfrac{3.4}{1}$ | $x=\dfrac{5\cdot 3.4}{1}$ | $x=17$ feet |
| 16. | $\dfrac{\text{amount of money}}{\text{number of days}}$ | $\dfrac{850}{5}=\dfrac{x}{3}$ | $\dfrac{x}{3}=\dfrac{850}{5}$ | $x=\dfrac{3\cdot 850}{5}$ | $x=\$510.00$ |
| 17. | $\dfrac{\text{number of bottles}}{\text{number of liters}}$ | $\dfrac{9}{4.5}=\dfrac{5}{x}$ | $\dfrac{x}{4.5}=\dfrac{5}{9}$ | $x=\dfrac{4.5\cdot 5}{9}$ | $x=2.5$ liters |
| 18. | $\dfrac{\text{length}}{\text{mass}}$ | $\dfrac{11}{210}=\dfrac{7}{x}$ | $\dfrac{x}{210}=\dfrac{7}{11}$ | $x=\dfrac{210\cdot 7}{11}$ | $x=133.63$ grams |
| 19. | $\dfrac{\text{number of degrees}}{\text{number of seconds}}$ | $\dfrac{32,400}{60}=\dfrac{x}{1}$ | $\dfrac{x}{1}=\dfrac{32,400}{60}$ | $x=\dfrac{1\cdot 32,400}{60}$ | $x=540$ degrees |
| 20 | $\dfrac{\text{number of feet}}{\text{number of meters}}$ | $\dfrac{750}{x}=\dfrac{3.28}{1}$ | $\dfrac{x}{1}=\dfrac{750}{3.28}$ | $x=\dfrac{1\cdot 750}{3.28}$ | $x=228.65$ meters |
| 21. | $\dfrac{\text{number of minutes}}{\text{distance}}$ | $\dfrac{40}{2.8}=\dfrac{60}{x}$ | $\dfrac{x}{2.8}=\dfrac{60}{40}$ | $x=\dfrac{2.8\cdot 60}{40}$ | $x=4.2$ miles |
| 22. | $\dfrac{\text{number of inches}}{\text{number of miles}}$ | $\dfrac{1}{140}=\dfrac{.75}{x}$ | $\dfrac{x}{140}=\dfrac{.75}{1}$ | $x=\dfrac{140\cdot 0.75}{1}$ | $x=105$ miles |
| 23. | $\dfrac{\text{number of tablespoons}}{\text{number of teaspoons}}$ | $\dfrac{1}{3}=\dfrac{x}{9.33}$ | $\dfrac{x}{9.33}=\dfrac{1}{3}$ | $x=\dfrac{9.33\cdot 1}{3}$ | $x=3.11$ tablespoons |
| 24. | $\dfrac{\text{number of inches}}{\text{number of miles}}$ | $\dfrac{2}{5}=\dfrac{9.5}{x}$ | $\dfrac{x}{5}=\dfrac{9.5}{2}$ | $x=\dfrac{5\cdot 9.5}{2}$ | $x=23.75$ miles |
| 25. | $\dfrac{\text{number of inches}}{\text{number of miles}}$ | $\dfrac{2.5}{256}=\dfrac{1}{x}$ | $\dfrac{x}{256}=\dfrac{1}{2.5}$ | $x=\dfrac{256\cdot 1}{2.5}$ | $x=102.4$ miles |

| 26. | number of carton<br>number of hours | $\dfrac{950}{3}=\dfrac{x}{8}$ | $\dfrac{x}{8}=\dfrac{950}{3}$ | $x=\dfrac{8\cdot950}{3}$ | $x=2533.3$ cartoons |
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| 27. | number of inches<br>number of miles | $\dfrac{12}{2795}=\dfrac{x}{142}$ | $\dfrac{x}{142}=\dfrac{12}{2795}$ | $x=\dfrac{142\cdot12}{2795}$ | $x=0.609$ inches |
| 28. | number of men<br>number of employees | $\dfrac{5}{12}=\dfrac{x}{480}$ | $\dfrac{x}{480}=\dfrac{5}{12}$ | $x=\dfrac{480\cdot5}{12}$ | $x=200$ men |
| 29. | number of miles<br>amount of time | $\dfrac{24}{2}=\dfrac{36}{x}$ | $\dfrac{x}{2}=\dfrac{36}{24}$ | $x=\dfrac{2\cdot36}{24}$ | $x=3$ hours |
| 30. | number of cups<br>number of cookies | $\dfrac{3}{64}=\dfrac{5}{x}$ | $\dfrac{x}{64}=\dfrac{5}{3}$ | $x=\dfrac{64\cdot5}{3}$ | $x=106.67$ cookies |
| 31. | distance<br>time | $\dfrac{4}{38}=\dfrac{x}{30}$ | $\dfrac{x}{30}=\dfrac{4}{38}$ | $x=\dfrac{30\cdot4}{38}$ | $x=3.157$ miles |
| 32. | distance<br>number of gallons | $\dfrac{34}{1}=\dfrac{610}{x}$ | $\dfrac{x}{1}=\dfrac{610}{34}$ | $x=\dfrac{1\cdot610}{34}$ | $x=17.94$ gallons |
| 33. | distance<br>time | $\dfrac{245}{4}=\dfrac{1215}{x}$ | $\dfrac{x}{4}=\dfrac{1215}{245}$ | $x=\dfrac{4\cdot1215}{245}$ | $x=19.83$ hours |
| 34. | amount of seed<br>number of square feet | $\dfrac{6}{160}=\dfrac{x}{210}$ | $\dfrac{x}{210}=\dfrac{6}{160}$ | $x=\dfrac{210\cdot6}{160}$ | $x=7.875$ pounds |
| 35. | amount of sugar<br>number of pieces | $\dfrac{1.5}{56}=\dfrac{x}{192}$ | $\dfrac{x}{192}=\dfrac{1.5}{56}$ | $x=\dfrac{192\cdot1.5}{56}$ | $x=5.14$ pounds |
| 36. | number of points<br>number of games | $\dfrac{28}{1}=\dfrac{x}{10}$ | $\dfrac{x}{10}=\dfrac{28}{1}$ | $x=\dfrac{10\cdot28}{1}$ | $x=280$ points |
| 37. | number of centimeters<br>number of inches | $\dfrac{2.54}{1}=\dfrac{x}{15}$ | $\dfrac{x}{15}=\dfrac{2.54}{1}$ | $x=\dfrac{15\cdot2.54}{1}$ | $x=38.1$ centimeters |

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| 38. | $\dfrac{\text{number of feet}}{\text{number of inches}}$ | $\dfrac{1}{12}=\dfrac{x}{42}$ | $\dfrac{x}{42}=\dfrac{1}{12}$ | $x=\dfrac{42\cdot 1}{12}$ | $x=3.5$ feet |
| 39. | $\dfrac{\text{number of crates}}{\text{number of days}}$ | $\dfrac{142}{1}=\dfrac{1000}{x}$ | $\dfrac{x}{1}=\dfrac{1000}{142}$ | $x=\dfrac{1\cdot 1000}{142}$ | $x=7.04$ days |
| 40. a) | $\dfrac{\text{amount Jane contributed}}{\text{total}}$ | $\dfrac{1}{5}=\dfrac{x}{50,000}$ | $\dfrac{x}{50,000}=\dfrac{1}{5}$ | $x=\dfrac{50000\cdot 1}{5}$ | $x=\$10,000$ |
| 40. b) | $\dfrac{\text{amount Tom contributed}}{\text{total}}$ | $\dfrac{4}{5}=\dfrac{x}{50,000}$ | $\dfrac{x}{50,000}=\dfrac{4}{5}$ | $x=\dfrac{50000\cdot 4}{5}$ | $x=\$40,000$ |
| 41. | $\dfrac{\text{number of square inches}}{\text{number of sqaure feet}}$ | $\dfrac{144}{1}=\dfrac{x}{15}$ | $\dfrac{x}{15}=\dfrac{144}{1}$ | $x=\dfrac{5\cdot 1144}{1}$ | $x=5720$ inches |
| 42. | $\dfrac{\text{cost}}{\text{number of square yards}}$ | $\dfrac{8.45}{1}=\dfrac{x}{56.2}$ | $\dfrac{x}{56.2}=\dfrac{8.45}{1}$ | $x=\dfrac{56.2\cdot 8.45}{1}$ | $x=\$474.89$ |
| 43. | $\dfrac{\text{cost}}{\text{number of square foot}}$ | $\dfrac{21.96}{1}=\dfrac{x}{410}$ | $\dfrac{x}{410}=\dfrac{21.96}{1}$ | $x=\dfrac{410\cdot 21.96}{1}$ | $x=\$9003.60$ |
| 44. | $\dfrac{\text{amount of juice}}{\text{amount of water}}$ | $\dfrac{1}{3}=\dfrac{2}{x}$ | $\dfrac{x}{3}=\dfrac{2}{1}$ | $x=\dfrac{3\cdot 2}{1}$ | $x=6$ parts water |
| 45. | $\dfrac{\text{number of scones}}{\text{amount of flour}}$ | $\dfrac{4}{200}=\dfrac{10}{x}$ | $\dfrac{x}{200}=\dfrac{10}{4}$ | $x=\dfrac{200\cdot 10}{4}$ | $x=500$ grams |
| 46. | $\dfrac{\text{number of muffins}}{\text{amount of flour}}$ | $\dfrac{12}{300}=\dfrac{68}{x}$ | $\dfrac{x}{300}=\dfrac{68}{12}$ | $x=\dfrac{300\cdot 68}{12}$ | $x=1700$ grams |