

**Practice 4-4****Percent of Change**

Find each percent of change. Describe the percent of change as an increase or decrease. Round to the nearest whole number.

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|--|--|--------------------------------------|--|
| 1. 36 g to 27 g                        | 2. 40 cm to 100 cm                     | 3. 90 in. to 45 in.                  | 4. 500 lb to 1500 lb                   |
| 5. \$90 to \$84.50                     | 6. \$100 to \$140                      | 7. \$15 to \$5.50                    | 8. 100 mi to 175 mi                    |
| 9. 280 m to 320 m                      | 10. 58 to 76                           | 11. 60 to 150                        | 12. 600 mi to 480 mi                   |
| 13. 18 to 27                           | 14. 290 yd to 261 yd                   | 15. 26.2 to 22.8                     | 16. \$8.50 to \$12.75                  |
| 17. $36\frac{1}{2}$ to $29\frac{1}{4}$ | 18. $74\frac{3}{4}$ to $66\frac{1}{2}$ | 19. $6\frac{3}{4}$ to $8\frac{1}{4}$ | 20. $15\frac{1}{2}$ to $18\frac{1}{4}$ |

Find each percent of change. Describe the percent of change as an increase or decrease. Round to the nearest whole number.

21. In 1985, the average price for gasoline was \$1.20/gal. In 2000, the average price for gasoline was \$1.56. Find the percent of change.
22. In 1980, Texas had 27 U.S. Representatives. That number increased to 30 in 2000. Find the percent of change.
23. In 1980, the average annual tuition charge for a four-year public university was \$840. The average annual tuition charge in 2000 was \$3356. What is the percent of change?
24. The United States imported 6,909,000 barrels of oil per day in 1980. In 2000, the United States imported 11,459,000 barrels of oil per day. What is the percent of change?
25. In 1977, the average number of households with cable television was 16.6%. In 2000, the average number of households with cable television was 68%. What is the percent of change?
26. In 1989, there were 38,000 licensed drivers under the age of 16. In 1999, the total number of licensed drivers under 16 was 33,248. Find the percent of change.
27. In 1990, Atlanta, GA, failed to meet air quality standards on 42 days. In 1999, Atlanta failed to meet air quality standards on 61 days. What is the percent of change?

Find the greatest possible error and the percent error for each measurement.

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|------------|-------------|------------|
| 28. 3 cm   | 29. 0.5 cm  | 30. 6 cm   |
| 31. 16 in. | 32. 36.85 g | 33. 0.9 cm |

Find the minimum and maximum possible areas for rectangles with the following measurements.

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|-------------------------|--------------------------|-----------------------|
| 34. 8 cm $\times$ 10 cm | 35. 3 in. $\times$ 5 in. | 36. 8 m $\times$ 12 m |
|-------------------------|--------------------------|-----------------------|

Find the minimum and maximum possible volume for a rectangular solid with the following measurements.

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|--|---|-----------------------------------|
| 37. 16 in. $\times$ 22 in. $\times$ 18 in. | 38. 13 cm $\times$ 15 cm $\times$ 18 cm | 39. 3 m $\times$ 4 m $\times$ 5 m |
|--|---|-----------------------------------|