

Problem set - percents - 4

Name: _____ Date: _____

Solve each problem. Unless directed otherwise, round answers to the nearest hundredth, or to the nearest percent. Show all of your work. You may use a calculator and notes.

1. The price of material last year was \$72 per ton. Now it costs \$80 per ton. By what percent has the price increased?
2. Six months ago the price of a product was \$1,200. Since then the price has gone down by 25%. What is the current price?
3. If gasoline decreased from \$3.00 per gallon to \$2.00 per gallon, by what percent did the price decrease?
4. If gasoline increased from \$2.00 per gallon to \$3.00 per gallon, by what percent did the price increase?
5. If the production per shift decreased from 8,000 units to 7,500 units, by what percent did the production rate decrease?
6. From \$2,000 to \$2,800 is what percent increase?

7. A product that has been selling for \$38 is to be increased in price by 12%. Find its new price.
8. An item regularly \$7.99 is on sale for 20% off. What is its sale price?
9. The new structural element is to be 40\$ thicker than the old one. If the old one was 82 mm thick, how thick should the new one be, rounded to the nearest millimeter?
10. The basic item is 48 inches long. The deluxe item is 60 inches.
 - (a) By what percent is the deluxe item longer than the basic item?
 - (b) By what percent is the basic item shorter than the deluxe item?
11. The length of part A must be within 12% of 280 mm. What is the minimum length of part A?
12. After a price reduction of 20%, an injection molding feeder unit sells for \$18,000. What was the price before the reduction?