Instructions: Record your answers to each of these problems directly on this page. Do the work on a separate page and attach these pages to this one. You should do the work by hand, but you may check your work with a calculator.

1. The amount in a savings account increased from $200 to $216. What was the percent of increase?

2. The sales tax is $15 on the purchase of a diamond ring that sells for $550. What is the sales tax rate?

3. Solve the percent problems.
    a. 40% of 30 is what number?
    b. 52% of 17.8 is what number?
    c. 30% of what number is 21?
    d. 17.5% of what number is 18?
    e. What percent of 16 is 4?
    f. What percent of 50 is 30?
    g. 172% of 50 is what number?
    h. 0.8% of 50 is what number?
    i. What percent of 15.2 is 12.7?
    j. What percent of 73 is 120?
    k. 0.28% of what number is 12?
    l. 1.5% of what number is 20?

4. The freshman class at a local high school has 320 students and twenty-five percent of these are in vocational studies. How many students are in voc.ed.?

5. Twenty-eight people attended a certain seminar at a local convention. If that group represents 20% of all the people registered, how many people are at the conference?

6. The cost of a jacket to Kaufmann's is $30.00. If they are going to make the selling price 155% of what it cost them, how much will they sell the jacket for?

7. Eight out of 21 people phoned believe that all politicians are corrupt. What percent of the sample does this represent?

8. Find the average of 157, 170 and 168.

9. Simplify:

   a) $\dfrac{-20}{-1}$　　　　　　　b) $\dfrac{8-8}{1247}$　　　　　　c) $\dfrac{15}{9-9}$

10. Multiply and reduce to lowest terms.

    a) $-3 \cdot \dfrac{-2}{5}$　　　　　　b) $\left(\dfrac{-7}{5}\right)\left(\dfrac{-3}{4}\right)$　　　　　c) $\dfrac{3}{4} \cdot \dfrac{2}{3}$

11. An ice cream truck had 95 popsicles when it left on its daily route. If 72% of these were sold at the end of the day, how many were sold?

12. Round 16.749 to the nearest tenth.

13. The population of one city was about 672,000 in 2010. The population of the city is projected to be about 630,000 in 2020. Find the percent decrease. (Round to the nearest tenth of a percent.)

14. Because of road construction in one city, commuters were advised to plan their Monday morning commute to take 150% of their usual commuting time. Explain what this means.