Math 7
Chapter 6 Test - Percents
REVIEW WORKSHEET #1

Name **KEY** Unit #30.

Date_____ Score_____

Write each as a **percent**.

1. 0.34 _34%_   2. 0.05 _5%_   3. 0.00625 _0.625%_   4. 3.5 _350%_

Write each as a **decimal** and **reduced fraction**.

5. 21% _0.21_ $\frac{21}{100}$ 6. 15% _0.15_ $\frac{3}{20}$ 7. 650% _6.5_ $\frac{13}{2}$ 8. .8% _0.008_ $\frac{0.002}{25}$

Write the fraction as a **decimal** and as a **percent**.

9. $\frac{3}{16}$ _0.1875_ _18.75%_   10. $\frac{31}{80}$ _0.3875_ _38.75%_

11. $\frac{53}{25}$ _2.12_ _212%_   12. $\frac{7}{140}$ _0.05_ _5%_

Solve each problem using the **equation method**. Please show the **equations and work** for each problem in the space provided.

13. What number is 45% of 580?

0.45 × 580
   = 261

13. ___261___

14. What percent of 160 is 62?

$\frac{62}{160} = 0.3875 \times 100$

14. ___38.75%___

Solve each problem using the **proportion method**. Please show the **proportion and work** for each problem in the space provided.

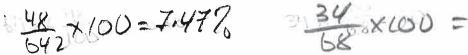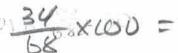15. 60% of what number is 348?

$\frac{348}{60} \times 100 = $

15. ___580___

16. 320% of 69 is what number?

69 × 3.2 = 220.8

16. ___220.8___

Solve each of the remaining problems using **either the equation or the proportion method**. Be sure to show your equation or proportion in the space provided.

17. 48 is what percent of 642?

$\frac{48}{642} \times 100 = 7.47\%$

17. ___7.47%___

18. 34 is 68% of what number?

$\frac{34}{68} \times 100 = $

18. ___50___

19. 110% of 124 is what number?

$124 \times \frac{110}{100} = 136.4$

20. What is 34% of 375?

$375 \times \frac{34}{100} = 127.5$

19. __136.4__

20. __127.5__

Find the percent of change (rounded to the nearest tenth of a percent). Show all proportions or equations.

21. 125 is increased to 210.

$\frac{85}{260} \times 100 = 4.5\%$

22. 50 is decreased to 14.

$\frac{36}{50} \times 100 =$

$1.02 \quad 2/3 = 0.72$

23. 45 is increased to 180.

$\frac{135}{45} \times 100.$

21. __68%__

22. __72%__

23. __300%__

24. Mrs. Rogers sold 49 out of 78 crafts at the fair. What percent of her crafts did she sell? Show your proportion or equation set-up.

$\frac{49}{78} = 0.628$

She Sold 62.8% of her crafts

24. __62.8%__

25. Bill bought a shirt for $35.80 plus he paid an additional 7% in sales tax. What was the final cost? Show your proportion or equation set-up.

$\$35.80 \times \frac{(7)}{100} = \$2.506$

He paid $38.31

$\$35.80 + \$2.506$
$= \$38.31$

25. __$38.31__
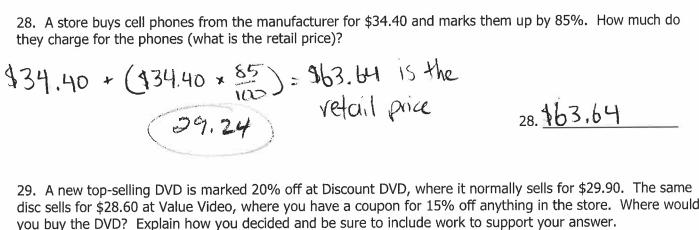
26. Kathy bought a pair of jeans on sale for 30% off of the regular price. If the jeans regularly cost $75.00. How much did she pay? Show your proportion or equation set-up.

$\$75.00 \times \frac{30}{100}$
$= \$22.5$

$\$75.00 - \$22.5$
$= \$52.5$

He paid $52.5

26. __$52.5__

27. There are 625 students at Median Middle School. If there 8% of the students were absent on Tuesday, how many students were absent?

$\left(625 \times \frac{8}{100} \right) = 50$ students were absent

27. __50__

28. A store buys cell phones from the manufacturer for $34.40 and marks them up by 85%. How much do they charge for the phones (what is the retail price)?

$34.40 + \left(\$34.40 \times \frac{85}{100}\right) = \$63.64$ is the retail price

$\left(29.24\right)$

28. $\underline{\$63.64}$

29. A new top-selling DVD is marked 20% off at Discount DVD, where it normally sells for $29.90. The same disc sells for $28.60 at Value Video, where you have a coupon for 15% off anything in the store. Where would you buy the DVD? Explain how you decided and be sure to include work to support your answer.

$\$29.90 - \left(29.90 \times \frac{20}{100}\right)$ | $\$28.60 - \left(28.60 \times \frac{15}{100}\right)$ | Buy it at discount DVD

$= \$23.92$ | $= \$24.31$

30. You put $500 in the bank, where it earns 1.5% simple interest each year. How long until your money will triple? $\$500 \times 3 = \$1500$

31. **25% off Sale** $150

A) In a sale, all the prices are reduced by 25%. Jane sees a jacket before the sale. What is the sale price?

$\left(\$112.50\right)$ $150 \times 0.25 = 37.5$ $150 - 37.5 =$

In the second week of the sale, the prices are reduced by 25% more.
In the third week, by 25% more.
In the fourth week, the prices are again reduced by 25% more.

B) Jane thinks this will mean that the prices will be reduced to $0 after the four reductions because 4 x 25% = 100%. Explain why Jane is wrong.

It is comparing offers. The second week would be 25% of the price of the first week after the sale. And so on

C) If Jane is able to buy her jacket after the four reductions.
   a. How much will she have to pay? $112.5 \times 0.75 = 84.375 \times 0.75 = 63.28 \times 0.75$

   $\left(= 47.46\right)$

   b. What percentage of the original price does she save?

   $150 - 47.46$

   $= \dfrac{102.54}{150} \times 100 = 68.36\%$

32. T-shirt Sale

T-shirt Sale

Any 3 T-shirts for $14.50

$3.99 $6.99 $5.99

A) Tom bought these three T-shirts at the sale price of $14.50. How much money did he save compared to the original total price of the T-shirts?

Original price = $16.97 or $17

$16.97 - $14.50 = $2.47

He saved $2.47

B) What percentage of the total price did Tom save?

$$\frac{\$2.47}{\$16.97} \times 100 = 14.6\%$$