

Unit 4 Review

1. A volleyball team plays 12 home matches out of 25 total matches. Write the ratio of home matches to away matches. Write your answer as a fraction. (+2)
2. On the football field, there are usually 5 linemen and 6 skilled positions on offense. Find the ratio of linemen to total offensive players on the field. Write your answer using a colon.(+ 2)

Directions: Solve each proportion. (+4)

3. $\frac{3}{4} = \frac{r}{18}$

4. $\frac{k}{9} = \frac{63}{81}$

5. $\frac{-5n}{8} = \frac{15}{4}$

6. $\frac{34}{6} = \frac{2r+1}{3}$

7. $\frac{4}{t} = \frac{8}{t-3}$

8. $\frac{2}{-3} = \frac{4v+4}{2v+14}$

Directions: Answer the following questions using a proportion. (+4)

9. What percent of 225 is 99?
10. What number is 60% of 85?
11. What number is 35% of 80.
12. What number is 100% of 10?
13. 300 is 45% of what number?
14. 50 is what percent of 40?

Directions: Find the percent. Round your answers to the nearest whole percent, if necessary: (+4)

15. 90 rock CD's out of 125 CD's
16. 97 freshmen out of a HS of size 430
17. 18 correct answers out of 25 total
18. 16 girls out of a class of 25?

Directions: Solve each equation for y.(+4)

19. $4y - 16x = 12$

20. $3y = 6x + 9$

21. $x - y = 13$

22. $x = 2 - y$

Application Problems (+4 each)

1. **Hobbies.** Some model trains are built to $\frac{1}{87}$ of actual size. Suppose an actual boxcar is 780 inches long. How many inches long is the model?
2. **I-Sync I-know...** It took 220 seconds to sync 800 songs from your computer to your ipod. At this rate, how long will it take to sync 1800 songs?
3. **Maps** A map has a scale of 1cm: 12km. The distance between two cities on the map is 6.8 cm. Estimate the actual distance between the cities.
4. **Coo-Coo!** A new coo-coo clock in the Black Forrest costs around 350€. It's a good thing they take VAT forms, which take about 19% off of the price! How much is the coo-coo clock if you use a VAT form?
5. **Beef Tips.** After eating out at the finest steakhouse in Kaiserslautern, Sully left an 8 Euro tip which was 14% of cost of the meal. How much was Sully's meal?