Name_____ Period_____

Unit 4 Corrective Assignment

1. A football team plays 14 home games out of 25 total games. Write the ratio of away matches to total matches. Write your answer as a fraction. (+2)

2. When Brust speaks, the words he says are usually in a ratio of 12 monosyllabic words to 5 polysyllabic words. Find the ratio of monosyllabic words to total words. Express your answer using a colon.

Directions: Solve each proportion. (+4)

3. $\frac{7}{15} = \frac{x}{60}$

4. $\frac{k}{8} = \frac{63}{72}$

5. $\frac{-10n}{8} = \frac{200}{4}$

6. $\frac{34}{12} = \frac{y+1}{3}$

7. $\frac{2}{g} = \frac{4}{g-3}$

8. $\frac{-4}{6} = \frac{4v+4}{2(v+7)}$

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

9. What percent of 225 is 200?

10. What number is 60% of 65?

11. What number is 45% of 80.

12. What number is 100% of 15?

13. 300 is 35% of what number?

14. 50 is what percent of 400?

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

15. 90 country CD's out of 108 CD's

16. 114 seniors out of a HS of size 430

17. 24 correct answers out of 25 total

18. 12 boys out of a class of 18?

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

19. $4y = 12 - 16x$

20. $3y + 9 = 6x$

21. $x = 18 + y$

22. $x = 1 - y$

Application Problems (+4 each)

1. ***Hobbies***. Some model trains are built to $\frac{1}{87}$ of actual size. Suppose an actual boxcar is 884 inches long. How many ***inches*** long is the model?

2. It took 220 seconds for Sully to recite 50 digits of π. At this rate, how long will it Sully to recite 220 digits?

3. A map has a scale of 1cm: 18km. The distance between two cities on the map is 4.5 cm. Estimate the actual distance between the cities.

4. A new coo-coo clock in the Black Forrest costs around 550€. 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. After eating out at the finest steakhouse in Kaiserslautern, Sully left an 8 Euro tip which was 14% of cost of the meal. (He enjoyed the fact that it was all from the same cow.) How much was Sully's meal?

Name _____ Period _____

Unit 4 Corrective Assignment

1. A football team plays 14 home games out of 25 total games. Write the ratio of away matches to total matches. Write your answer as a fraction. (+2)

25 - 14 = 11 away games

11 away / 25 total

2. When Brust speaks, the words he says are usually in a ~~ratio of 12 monosyllabic~~ words to 5 polysyllabic words. Find the ratio of monosyllabic words to total words. Express your answer using a colon.

12 mono : 5 poly = 17 total

12 mono : 17 total

Directions: Solve each proportion. (+4)

3. $\frac{7}{15} = \frac{x}{60}$

$15x = 420$

$x = 28$

4. $\frac{k}{8} = \frac{63}{72}$

$504 = 72k$

$k = 7$

5. $\frac{-10n}{8} = \frac{200}{4}$

$1600 = -40n$

$n = -40$

6. $\frac{34}{12} = \frac{y+1}{3}$

$102 = 12(y+1)$

$102 = 12y + 12$

$90 = 12y$

$y = 7.5$

7. $\frac{2}{g} = \frac{4}{g-3}$

$4g = 2g - 6$

$2g = -6$

$g = -3$

8. $\frac{-4}{6} = \frac{4v+4}{2(v+7)}$

$6(4v+4) = -8(v+7)$

$24v + 24 = -8v - 56$

$32v = -80$

$v = -2.5$

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

9. What percent of 225 is 200?

$\frac{x}{100} = \frac{200}{225}$

$x = 89\%$

10. What number is 60% of 65?

$\frac{60}{100} = \frac{x}{65}$

$x = 39$

11. What number is 45% of 80.

$\frac{45}{100} = \frac{x}{80}$

$x = 36$

12. What number is 100% of 15?

DA WHOLE THING!

$x = 15$

13. 300 is 35% of what number?

$\frac{35}{100} = \frac{300}{x}$

$x = 857$

14. 50 is what percent of 400?

12.5%

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

15. 90 country CD's out of 108 CD's

83%

16. 114 seniors out of a HS of size 430

27%

17. 24 correct answers out of 25 total

96%

18. 12 boys out of a class of 18?

67%

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

19. $\frac{4y}{4} = \frac{12}{4} - \frac{16x}{4}$

$y = 3 - 4x$

20. $3y + 9 = 6x$

$\frac{3y}{3} = \frac{6x}{3} - \frac{9}{3}$

$y = 2x - 3$

21. $x = 18 + y$

$x - 18 = y$

22. $x = 1 - y$

$-x + 1 = y$

Application Problems (+4 each)

1. ***Hobbies***. Some model trains are built to $\frac{1}{87}$ of actual size. Suppose an actual boxcar is 884 inches long. How many ***inches*** long is the model?

$\frac{\text{MODEL}}{\text{REAL}}$ $\frac{1}{87} = \frac{x}{884}$

$x = 10.16$ inches

2. It took 220 seconds for Sully to recite 50 digits of π. At this rate, how long will it Sully to recite 220 digits?

$\frac{\text{DIGITS}}{\text{SEC}}$ $\frac{50}{220} = \frac{220}{x}$

$x = 968$ sec

3. A map has a scale of 1cm: 18km. The distance between two cities on the map is 4.5 cm. Estimate the actual distance between the cities.

$\frac{\text{cm}}{\text{km}}$ $\frac{1}{18} = \frac{4.5}{x}$

$x = 81$ km

4. A new coo-coo clock in the Black Forrest costs around 550€. 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?

550

x .81

445.50 €

5. After eating out at the finest steakhouse in Kaiserslautern, Sully left an 8 Euro tip which was 14% of cost of th meal. (He enjoyed the fact that it was all from the same cow.) How much was Sully's meal?

$\frac{14}{100} = \frac{8}{x}$ (8 IS OF)

$x = 57.14$ €