

Algebra 1 Chapter 4 Review Fall 2013

Round answers to the nearest hundredth unless noted otherwise.

1. Use the following letters to write the ratio of P's to Q's QQPQQPPPPQ

2. Solve each proportion: a) $\frac{27}{m} = \frac{12}{25}$ b) $\frac{4x-3}{5x+4} = \frac{6}{7}$

3. Use the conversions below to convert into 86.4 $\frac{\text{cents}}{\text{ounce}}$ into $\frac{\text{pesos}}{\text{kilogram}}$.

100 cents = \$1 16 ounces = 1 pound 2.2046 pounds = 1 kg 1\$ US = 42.69 Pesos

4. The scale on a drawing is 6 : 50. If the height of the object in the drawing is 15 inches, how tall is the actual object?

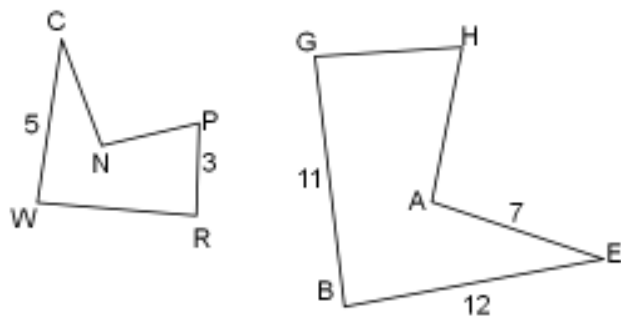
5. The scale on a map is 2.5in = 48 miles. If a road is really 20 miles long how long is it on the map?

6. Louise can do 110 jumping jacks in 3 minutes. At the same rate how many minutes will it take her to do 300 jumping jacks?

7. The ratio of baseball cards to football cards in Ali's collection is 13:3. If he has a total of 384 cards find the number of football cards he has.

8. Use the similar figures below to find the length of the following sides:

a) NC= b) GH=



9. A 6 foot tall person casts a 9 foot long shadow. If the shadow of a building is 40 feet long find the height of the building.

10. What is 23% of 240?

11. 3 is what percent of 845?

12. 62% of what is 90?

13. What is 130% of 8?

14. The store amanager knows from past records about 13% of purchases will be returned. If the store had 64 items returned how many items were originally sold?

15. A survey of 450 people finds that 62 of them like 7-Up. What percent of those surveyed prefer 7-Up?

16. The price of a loaf of bread used to be \$1.25. Today the price is \$2.15. Find the percent change in the price of a loaf of bread and state if it's an increase or a decrease.

17. The value of an investment used to be \$18,000. The value is now \$14,500. Find the percent change in the value of the investment and state if it's an increase or a decrease.

18. A workers salary has been reduced 15% from what it was last year. His salary is now \$9 per hour. What was it last year?

19. The number of cars sold this year at a used car lot is an increase of 5% over last years sales. If there were 540 cars sold last year find this years sales.

For 20 and 21 use this information: A survey of 200 people was conducted asking people to pick their favorite TV network. The results are in the table.

	ABC	NBC	CBS	Total
Child	23	34	19	76
Adult	18	51	55	124
Total	41	85	74	200

20. You will ask one person at random. Find each probability as a fraction. Don't reduce.

a) P(Likes NBC) b) P(Child) c) P(Not CBS) d) P(CBS or NBC)

e) P(Child and ABC) d) P(Adult or CBS)

21. If you asked a total of 50,000 people this same question how many of them would say that they like NBC?

22. The numbers from 1 to 20 are placed in a bag. One number will be drawn at random. Give each probability as a fraction. Don't reduce.

a) P(Multiple of 4) b) P(Factor of 18) c) P(Odd or a multiple of 5)

d) P(Even and a multiple of 3)

23. Which is a better buy? Give a reason for your choice.

12 pack of pop for \$4.50 or an 8 pack of the same pop for \$3.12?

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1. 6:5 2. a) $m = 56.25$ b) $x = -22.5$ 3. 1301.04 $\frac{\text{pesos}}{\text{kilogram}}$ 4. 125 inches

5. 1.04 inches 6. 8.18 minutes 7. 72 football cards 8. a) $NC=2.92$ b) $GH=7.2$

9. 26.67 feet tall. 10. 55.2 11. 0.36% 12. 145.16 13. 10.4

14. About 492 items. 15. 13.78% 16. 72% increase. 17. 19.44% decrease.

18. \$10.59 19. 567 cars

20. a) $\frac{85}{200}$ b) $\frac{76}{200}$ c) $\frac{126}{200}$ d) $\frac{159}{200}$ e) $\frac{23}{200}$ d) $\frac{143}{200}$

21. 21,250 22. a) $\frac{5}{20}$ b) $\frac{6}{20}$ c) $\frac{12}{20}$ d) $\frac{3}{20}$

23. The 12pack is a better buy because it is cheaper per pop (\$0.375 per pop versus \$0.39 per pop)