Math 081 Worksheet Section 5.4 v02
Spring 2011 Dressler

Name_____

Solve.

1) The ratio of a quarterback's completed passes to attempted passes is 3 to 7. If he attempted 14 passes, find how many passes he completed. Round to the nearest whole number if necessary.

2) The ratio of a quarterback's completed passes to attempted passes is 4 to 9. If he attempted 18 passes, find how many passes he completed. Round to the nearest whole number if necessary.

3) The ratio of a basketball player's completed free throws to attempted free throws is 8 to 9. If she completed 16 free throws, find how many free throws she attempted. Round to the nearest whole number if necessary.

4) The ratio of a basketball player's completed free throws to attempted free throws is 3 to 8. If she completed 15 free throws, find how many free throws she attempted. Round to the nearest whole number if necessary.

5) It takes Winnie 22 minutes to type and spell check 14 pages of a manuscript. Find how long it takes her to type and spell check 105 pages. Round answers to the nearest whole number if necessary.

6) It takes Emma 26 minutes to type and spell check 6 pages of a manuscript. Find how long it takes her to type and spell check 15 pages. Round answers to the nearest whole number if necessary.

7) It takes Frank 40 minutes to type and spell check 6 pages. Find how many pages he can type and spell check in 0.5 hours. Round answers to the nearest tenth if necessary.

8) It takes Don 10 minutes to type and spell check 6 pages. Find how many pages he can type and spell check in 0.5 hours. Round answers to the nearest tenth if necessary.

9) On an architect's blueprint, 1 inch corresponds to 9 feet. Find the length of a wall represented by a line $8\frac{1}{3}$ inches long on the blueprint.

Round to the nearest tenth if necessary.

10) On an architect's blueprint, 1 inch corresponds to 6 feet. Find the length of a wall represented by a line $4\frac{2}{3}$ inches long on the blueprint.

Round to the nearest tenth if necessary.

11) On an architect's blueprint, 1 inch corresponds to 8 feet. If an exterior wall is 40 feet long, find how long the blueprint measurement should be. Write answer as a mixed number if necessary.

12) On an architect's blueprint, 1 inch corresponds to 12 feet. If an exterior wall is 76 feet long, find how long the blueprint measurement should be. Write answer as a mixed number if necessary.

13) It is recommended that there be at least 9.9 square feet of floor space in a classroom for every student in the class. Find the minimum floor space that 28 students require. Round to the nearest tenth if necessary.

14) It is recommended that there be at least 9.3 square feet of floor space in a classroom for every student in the class. Find the minimum floor space that 27 students require. Round to the nearest tenth if necessary.

15) It is recommended that there be at least 10.3 square feet of floor space in a classroom for every student in the class. Find the minimum floor space that 44 students require. Round to the nearest tenth if necessary.

16) It is recommended that there be at least 12.3 square feet of ground space in a garden for every newly planted shrub. A garden is 32.8' by 15'. Find the maximum number of shrubs the garden can accommodate.

17) It is recommended that there be at least 18.55 square feet of ground space in a garden for every newly planted shrub. A garden is 42.4' by 21'. Find the maximum number of shrubs the garden can accommodate.

18) It is recommended that there be at least 11 square feet of work space for every person in a conference room. A certain conference room is 20' by 15'. Find the maximum number of people the room can accommodate.

19) It is recommended that there be at least 19 square feet of work space for every person in a conference room. A certain conference room is 20' by 18'. Find the maximum number of people the room can accommodate.

20) A bag of fertilizer covers 2000 square feet of lawn. Find how many bags of fertilizer should be purchased to cover a rectangular lawn 240 feet by 170 feet.

21) A bag of fertilizer covers 3000 square feet of lawn. Find how many bags of fertilizer should be purchased to cover a rectangular lawn 340 feet by 110 feet.

22) The scale on a map states that 1 centimeter corresponds to 30 kilometers. On the map, two cities are 27 cm apart. Find the actual distance.

23) The scale on a map states that 1 centimeter corresponds to 20 kilometers. On the map, two cities are 0.3 cm apart. Find the actual distance.

24) The scale on a map states that 1 centimeter corresponds to 40 kilometers. On the map, two cities are 0.6 cm apart. Find the actual distance.

25) A punch recipe calls for mixing 5 parts of orange juice with 3 parts of lemon juice. Find how much orange juice should be mixed with 90 ounces of lemon juice.

26) A punch recipe calls for mixing 4 parts of grape juice with 5 parts of strawberry juice. Find how much grape juice should be mixed with 80 ounces of strawberry juice.

27) Yearly homeowner property taxes are figured at a rate of $1.85 tax for every $100 of home value. Find the property taxes on a house valued at $243,000.

28) Yearly homeowner property taxes are figured at a rate of $1.25 tax for every $100 of home value. Find the property taxes on a townhouse valued at $185,000.

29) A baseball player makes 3 hits in every 7 times at bat. At this rate, if he made 18 hits, find how many times he batted.

30) A baseball player makes 3 hits in every 11 times at bat. At this rate, if he made 24 hits, find how many times he batted.

31) There are 1.1 milligrams of iron in a 3.5 ounce serving of chicken. How much iron is in 5 ounces of chicken? Round the answer to one decimal place.

32) There are 1.5 milligrams of iron in a 3.5 ounce serving of pork. How much iron is in 4 ounces of pork? Round the answer to one decimal place.

33) One pound of a product yields $3\frac{2}{3}$ cups. How many pounds of this product will be required by a recipe that calls for 8 cups of the product?

34) One pound of a product yields $2\frac{2}{3}$ cups. How many pounds of this product will be required by a recipe that calls for 7 cups of the product?

35) Nine out of 10 adults in a certain city buy their drugs at large drug stores. If this city has 36,000 adults, how many of these adults would you expect to buy their drugs at large drug stores?

36) The gasoline/oil ratio for a certain lawn mower is 40 to 1. If 1 gallon equals 128 fluid ounces, how many fluid ounces of oil should be mixed with 20 gallons of gasoline? Round the answer to the nearest whole ounce.

37) The adult daily dosage for a certain medicine is 50 mg (milligrams) for every 10 pounds of body weight. If the patient weighs 160 pounds and he is to receive a dose of this medicine every 3 hours, find the amount of medicine he should receive in each dose.

38) Richard Saltwood's car averages 462 miles on its 14–gallon tank of gas. If Richard runs out of gas and a mechanic comes to his rescue with $3\frac{1}{2}$ gallons of gas, determine how far his car can go. Round to the nearest mile.

39) A can of lemonade comes with a measuring scoop and directions for mixing are 2 scoops of mix for every 22 cups of water. How much water is needed to make the entire can of lemonade if there are 40 scoops of mix?

40) The ratio of the weight of an object on Earth to the weight of the same object on Pluto is 100 to 3. If a buffalo weighs 3560 pounds on Earth, find the buffalo's weight on Pluto. (Round to the nearest pound.)

41) A solution strength of 15 mg of medicine in 1 mL of solution is available. If a patient needs 18 mg, how many mL do you administer?

42) It is recommended that there be at least 11.2 square feet of floor space in a classroom for every student in the class. Find the minimum floor space that 49 students require. Round to the nearest tenth if necessary.

43) The scale on a map states that 1 centimeter corresponds to 20 kilometers. On the map, two cities are 7 cm apart. Find the actual distance.

44) A punch recipe calls for mixing 5 parts of grape juice with 3 parts of apple juice. Find how much grape juice should be mixed with 90 ounces of apple juice.

45) A baseball player makes 6 hits in every 11 times at bat. At this rate, if he made 42 hits, find how many times he batted.

46) The ratio of a quarterback's completed passes to attempted passes is 5 to 9. If he attempted 27 passes, find how many passes he completed. Round to the nearest whole number if necessary.

47) It takes Kim 22 minutes to type and spell check 6 pages of a manuscript. Find how long it takes her to type and spell check 45 pages. Round answers to the nearest whole number if necessary.

48) It takes Don 20 minutes to type and spell check 14 pages. Find how many pages he can type and spell check in 0.5 hours. Round answers to the nearest tenth if necessary.

49) It is recommended that there be at least 12.3 square feet of floor space in a classroom for every student in the class. Find the minimum floor space that 42 students require. Round to the nearest tenth if necessary.

1) 6 passes
2) 8 passes
3) 18 free throws
4) 40 free throws
5) 165 min
6) 65 min
7) 4.5 pages
8) 18 pages
9) 75 ft
10) 28 ft
11) 5 in.
12) $6\frac{1}{3}$ in.
13) 277.2 sq ft
14) 251.1 sq ft
15) 453.2 sq ft
16) 40 shrubs
17) 48 shrubs
18) 27 people
19) 18 people
20) 21 bags
21) 13 bags
22) 810 km
23) 6 km
24) 24 km
25) 150 oz
26) 64 oz
27) $4495.50
28) $2312.50
29) 42 times at bat
30) 88 times at bat
31) 1.6 mg
32) 1.7 mg
33) $2\frac{2}{11}$ lb
34) $2\frac{5}{8}$ lb
35) 32,400 adults
36) 64 fl oz
37) 100 mg
38) 116 mi
39) 440 cups
40) 107 lb
41) 1.2 mL
42) 548.8 sq ft
43) 140 km
44) 150 oz
45) 77 times at bat
46) 15 passes
47) 165 min

48) 21 pages
49) 516.6 sq ft