Ratio Wording

Name:

Solve each problem.

Ex) At the burger shop the ratio of regular sodas sold to diet sodas sold was 3:6. For every 6 diet sodas sold there are 3 regular sodas sold.

1) For every 2 males birds in a bird cage there are 5 females. What is the ratio of males to females?

2) At the store the ratio of books sold to movies sold was 8:2. For every 8 books sold there were 2 movies sold.

3) At the pet store the ratio of dogs to cats was 4:7. For every _____ dogs there are _____ cats.

4) During the class election the ratio of votes for Tiffany to votes for Jerry was 4:3. For every 3 votes Jerry got Tiffany got 4.

5) In a bag of candy for every 9 chocolate pieces there are 6 sugar pieces. What is the ratio of chocolate pieces to sugar pieces?

6) For every 6 green apples in an orchard there were 9 red apples. What is the ratio of green apples to red apples?

7) At the movie theater the ratio of small popcorns sold to large popcorns sold was 5:9. For every _____ large popcorns sold there are _____ small popcorns sold.

8) The ratio of pickles to onions on a burger was 2:4. For every _____ pickles there are _____ onions.

9) For every 5 cars in a parking lot there are 6 trucks. What is the ratio of cars to trucks in the parking lot?

10) At an icecream shop the ratio of chocolate cones sold to vanilla cones cones sold was 4:3. For every _____ vanilla cones sold there were _____ chocolate cones sold.

11) For every 4 hamburgers sold at the malt shop there are 2 hotdogs sold. What is the ratio of hotdogs sold to hamburgers sold?

12) For every 8 Wii games Janet owned she had 7 PS3 games. What is her ratio of Wii games to PS3 games?

Answers

Ex. 6 3

1. fraction
2. part / whole
3. ratio part:part
4.
5.
6.
7.
8.
9.
10.
11.
12.

1-10	92	83	75	67	58	50	42	33	25	17
11-12	8	0								

Identifying True and False Ratio Statements

Name:

Determine which statement or statements are true. If none write 'none'.

1) diet sodas = 2 , regular sodas = 9

A. The ratio of diet sodas to regular sodas sold is 2:9

B. The ratio of diet sodas to regular sodas sold is 9:2

C. For every 2 diet sodas sold there are 9 regular sodas sold

D. The ratio of regular sodas to diet sodas sold is 9:2

2) large popcorns = 6 , small popcorns = 9

A. The ratio of large popcorns to small popcorns sold is 9:6

B. For every 6 large popcorns sold there are 9 small popcorns sold

C. For every 6 small popcorns sold there are 9 large popcorns sold

D. The ratio of small popcorns to large popcorns sold is 9:6

3) nails used = 6 , bird houses built = 2

A. The ratio of bird houses built to nails used was 2:6

B. For every 6 nails used there were 2 bird houses built

C. The ratio of nails used to bird houses built was 6:2

D. For every 2 bird houses built there were 6 nails used

4) pushups = 4 , sit-ups = 5

A. For every 5 sit-ups done there were 4 pushups done

B. The ratio of pushups done to sit-ups done is 5:4

C. The ratio of sit-ups done to pushups done is 5:4

D. The ratio of pushups done to sit-ups done is 4:5

5) texts sent = 8 , calls made = 5

A. The ratio of texts sent to calls made was 8:5

B. The ratio of texts sent to calls made was 5:8

C. For every 5 texts sent there were 8 calls made

D. For every 8 calls made there were 5 texts sent

6) cats = 2 , dogs = 8

A. For every 8 cats there are 2 dogs

B. The ratio of cats to dogs is 2:8

C. The ratio of dogs to cats is 8:2

D. The ratio of cats to dogs is 8:2

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

1-6	83	67	50	33	17	0

Using Rate Language

Name:

Solve each problem.

1) We paid $40 for 8 hamburgers, which is a rate of $___ per hamburger.

2) A pencil company used 60 grams of rubber to make 10 pencils, which is a rate of ___ grams per pencil.

3) An industrial machine is able to make 9 pens in 3 seconds. What is the rate made per second?

4) It took a pet store 10 weeks to sell 80 cats. What is the rate sold per week?

5) For every 4 miles Vanessa jogged, Cody jogged 3 miles. If Vanessa jogged 1 miles, how far would Cody have jogged?

6) A tailor used 2 meters of string to make 10 Halloween masks. He used ____ of a meter for each mask.

7) A machine worked for 5 hours and used 4 kilowatts of electricity. The machine used ____ of a kilowatt each hour it worked.

8) A candy company used 8 gallons of syrup to make 4 batches of candy. What is the rate of syrup per batch?

9) Oliver earned $12 for mowing 3 lawns. What is the rate earned per lawn mowed?

10) A baker used 4 cups of flour to make 5 batches of brownies. He used ____ of a cup of flour to make 1 batch of brownies.

11) A computer programmer worked for 10 hours and earned $70, which is a rate of $___ per hour.

12) A scientist used 2 gallons of liquid for every 3 hours he works. He uses ____ of a gallon each hour he works.

13) A fair owner made 18 dollars when a group of 3 people entered, which is a rate of ___ dollar per person.

14) Luke spent 8 days collecting cans and he managed to collect 6 pounds. He collected ____ of a pound each day.

15) A jogger travelled 50 kilometers in 5 days. What is the rate he travelled per day?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

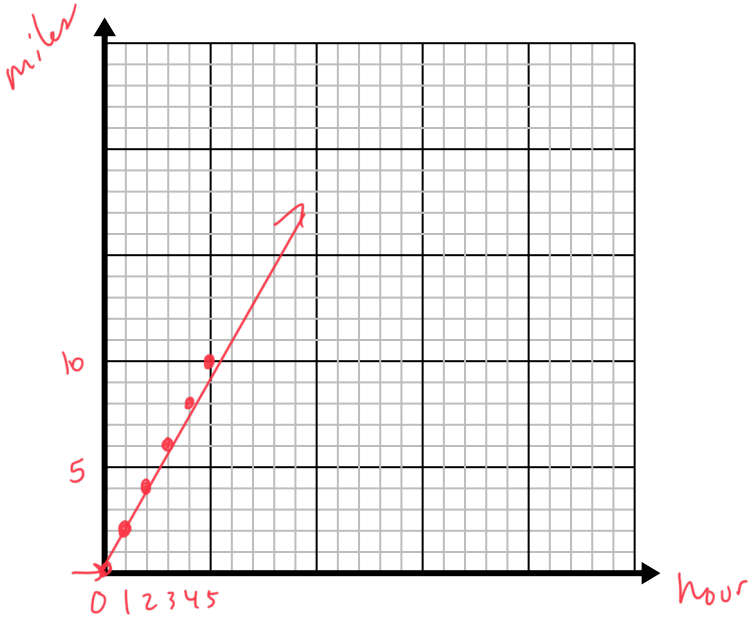
1-10	93	87	80	73	67	60	53	47	40	33
11-15	27	20	13	7	0					

Solve each problem.

1) Every hour Ned walks 2 miles.

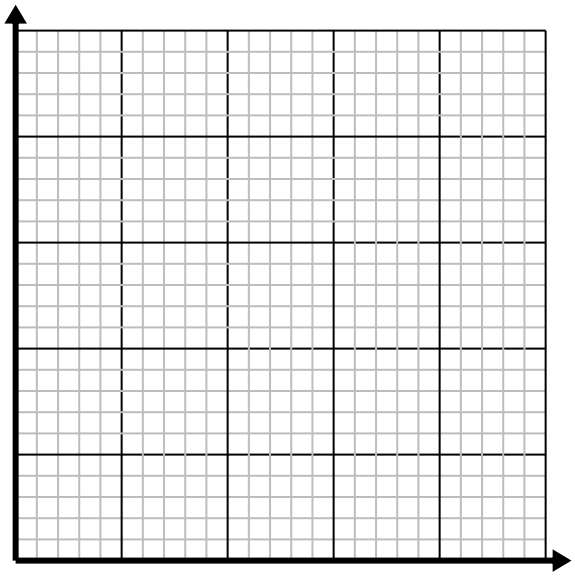
Create a table showing the miles travelled over the course of 5 hours, then plot the values on the coordinate plane.

miles	2	4	6	8	10
hours	1	2	3	4	5



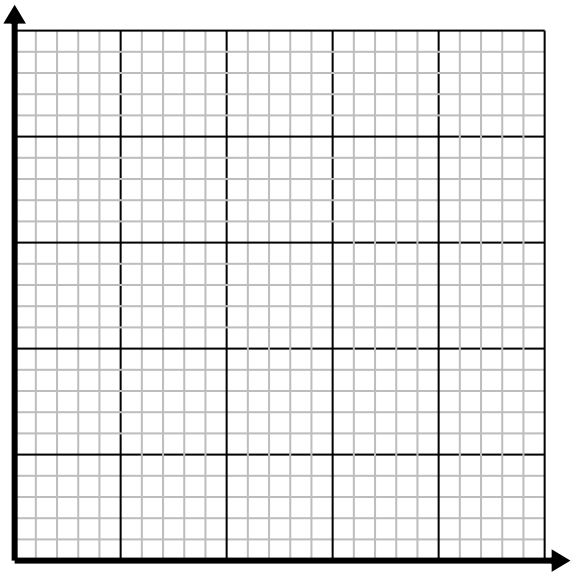
2) For every cup of flour 5 batches of cookies can be made.

Create a table showing the cups of flour need for up to 5 batches of cookies, then plot the values on the coordinate plane.



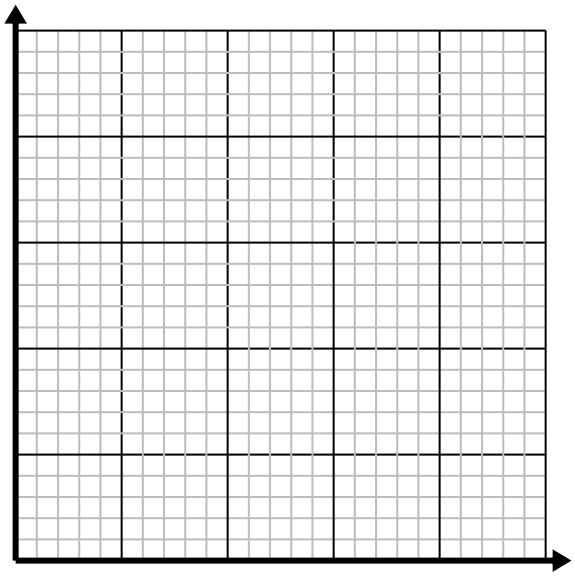
3) For every shirts made 3 buttons are used.

Create a table showing the buttons needed for making up to 5 shirts, then plot the values on the coordinate plane.



4) Every box of candy has 2 pieces of candy.

Create a table showing the pieces of candy in up to 5 boxes, then plot the values on the coordinate plane.



Finding Ratios and Unit Rate

Name:

Find the ratio and unit rate for each problem.

		Ratio	Rate	
Ex)	6 boxes can hold 36 books	36:6	6	books per box
1)	75 pints of juice in 5 containers	75:5 → 15:1	15	pints per container
2)	40 centimeters of snow in 20 hours			centimeters per hour
3)	32 customers in 4 checkout lanes	32:4 → 8:1	8	customers per lane
4)	216 cherry pieces in 6 bags of candy	216:6 → 36:1	36	pieces per bag
5)	120 dollars for mowing 4 lawns	120:4 → 30:1	30	dollars per lawn
6)	92 dollars for 46 TV channels	92:46 → 2:1	2	dollars per channel
7)	488 points for defeating 61 enemies			points per enemy
8)	70 copies in 7 minutes			copies per minute
9)	96 customers over 3 days			customers per day
10)	12 pies eaten in 3 minutes			pies per minute
11)	7 bags with 490 cans			cans per bag
12)	4 minutes to type 408 words			words per minute
13)	10 hours to drive 660 miles			miles per hour
14)	6 trays with 30 ice cubes			ice cubes per tray
15)	10 CDs with 90 songs			songs per CD

Answers

Ex.	36:6	6
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

1-10	93	87	80	73	67	60	53	47	40	33
11-15	27	20	13	7	0					

Using Double Numberlines for Ratios

Name:

Use the double numberline to solve the problems.

1) A builder could get 6 sheets of sheetrock for $9. If he bought 12 sheets, how much money would he have spent?

2) A sloppy joe restaurant gave 3 napkins for every 7 items ordered. If someone bought 14 items, how many napkins should they get?

3) In a video game for every 6 enemies defeat, you earned 3 points. If you defeated 48 enemies, how many points would you have earned?

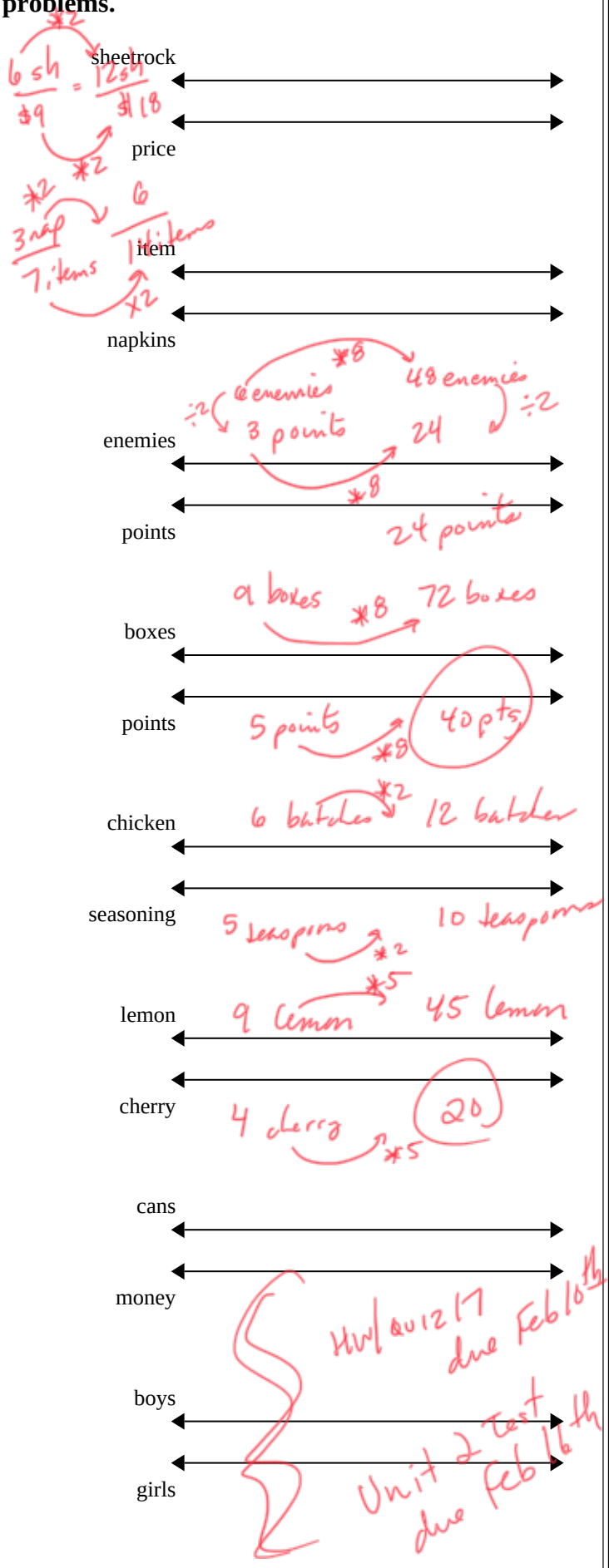
4) At a school fundraiser for every 9 boxes of chocolate sold you earn 5 points. If you were to sell 72 boxes, how many points would you have earned?

5) A recipe call for 5 teaspoons of seasoning for every 6 batches of chicken. If you have 12 batches of chicken, how many teaspoons of seasoning will you need?

6) A box of candy had 4 cherry pieces for every 9 lemon pieces. If the box had 45 lemon pieces, how many cherry pieces would there be?

7) For every 6 cans Oliver collected for recycling he earned 9 cents. After he collected 60 cans, how much money would he have earned?

8) The ratio of boys to girls at the park was 9 to 6. If there were 45 boys, how many girls were there?



Answers

1. $18
2. 6 napkins
3.
4.
5.
6.
7.
8.

1-8	88	75	63	50	38	25	13	0

Solve each problem.

1) A *book store* was selling 5 books for $27.25. *Online* the you could buy 6 books for $32.16. Which place has a lower unit price?

2) At the store beef jerky was $73.70 for 5 pounds. If you bought 7 pounds, how much would it cost?

3) In *September* a clothing store had a sale where you could get 3 scarves for $13.35. In *October* the price was changed to 5 scarves for $22.65. On which month did a scarf cost the most?

4) At a comic book convention *vendor 1* was selling a set of 5 comics for $53.10. *Vendor 2* was selling a set of 3 comics for $31.71. Which vendor has the higher unit price?

5) At the produce store you can buy 4 bags of bananas for $22.52. How much would it cost if you were to buy 2 bags?

6) A supermarket had bags of *red* grapes for $27.09 for 7. The also had bags of *green* grapes priced at $14.96 for 4. Which type of grape is most expensive?

7) An ice company charged $3.40 for 4 bags of ice. If a convenience store bought 6 bags of ice, how much would it have cost them?

8) At the baseball stadium the price for popcorn is $15.36 for 6 bags. If you wanted to buy 2 bags of popcorn, how much would it cost?

9) A pet store was selling mice 5 for $8.35. If they ended up selling 2 mice, how much money would they have earned?

10) A video game store was getting rid of old games, selling them 3 for $34.26. If they sold 2 games, how much money would they have made?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

1-10	90	80	70	60	50	40	30	20	10	0

Solve each problem.

1) A classroom had 35 glue sticks. If the ratio of glue sticks to glue bottles was 5 : 2, how many glue bottles did the classroom have?

2) A student finished 8 of her homework problems in class. If the ratio of problems she finished to problems she still had left was 4 : 1, how many homework problems did she have total?

3) On a Saturday, a library checked out 52 books. If 24 of the books were fiction, what is the ratio of non-fiction books to fiction books checked out?

4) A recipe called for the ratio of sugar to flour to be 10 : 3. If you used 70 ounce of sugar, how many ounces of flour would you need to use?

5) At a bake sale there were 72 raisin cookies sold. If the ratio of raisin cookies sold to oatmeal cookies sold was 9 : 1, what is the combined amount of raisin and oatmeal cookies sold?

6) Kaleb had 136 songs on his MP3 player. If he deleted 56 songs, what is the ratio of songs he kept to songs he deleted?

7) The ratio of red cars to blue cars in a parking lot was 5 : 3. If there were 40 red cars, how many blue cars were there?

8) A produce store sold 63 red apples. If the ratio of red apples to green apples sold was 7 : 2, what is the combined amount of red and green apples sold?

9) For homework, a student had to complete 15 problems total. If she finished 6 problems in class, what is the ratio of problems she still needs to complete to problems that she's already finished?

10) At a farm the ratio of cows to horses was 9 : 2. If there were 72 cows at the farm, how many horses were there?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

1-10	90	80	70	60	50	40	30	20	10	0

Reducing Ratios

Name:

Reduce each ratio to its lowest form.

Ex) 50 : 35 10 : 7

1) 49 : 21 _____

2) 42 : 54 _____

3) 12 : 32 _____

4) 45 : 20 _____

5) 15 : 24 _____

6) 12 : 8 _____

7) 2 : 16 _____

8) 35 : 28 _____

9) 20 : 36 _____

10) 14 : 63 _____

11) 27 : 36 _____

12) 70 : 10 _____

13) 10 : 60 _____

14) 42 : 30 _____

15) 48 : 42 _____

16) 90 : 10 _____

17) 9 : 18 _____

18) 5 : 20 _____

19) 64 : 72 _____

20) 42 : 12 _____

Answers

Ex. 10 : 7

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

1-10	95	90	85	80	75	70	65	60	55	50
11-20	45	40	35	30	25	20	15	10	5	0

Converting Tables

Name:

Fill in the blanks in each of the conversion tables.

Hint:
1 Pound = 16 Ounces

	Pounds	Ounces
1)		80
2)		128
3)	2	
4)		16
5)	4	

Hint:
1 Yard = 3 Feet

	Yards	Feet
6)		3
7)	4	
8)		6
9)	10	
10)		15

Hint:
1 Hour = 60 Minutes

	Minutes	Hours
11)		9
12)	240	
13)	180	
14)		7
15)	60	

Hint:
1 Pint = 2 Cups

	Cups	Pints
16)	14	
17)		5
18)		6
19)		4
20)	4	

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

1-10	95	90	85	80	75	70	65	60	55	50
11-20	45	40	35	30	25	20	15	10	5	0

Converting American Lengths

Name:

Fill in the blank to make the conversion true.

1) 8 feet = _____ inches

2) 5 feet = _____ inches

3) 6 feet = _____ inches

4) 1 foot = _____ inches

5) 2 feet = _____ inches

6) 5 yards = _____ feet

7) 8 yards = _____ feet

8) 2 yards = _____ feet

9) 4 yards = _____ feet

10) 6 yards = _____ feet

11) _____ feet = 10 yards

12) _____ feet = 9 yards

13) _____ feet = 7 yards

14) _____ feet = 3 yards

15) _____ feet = 1 yard

16) _____ inches = 3 feet

17) _____ inches = 4 feet

18) _____ inches = 10 feet

19) _____ inches = 7 feet

20) _____ inches = 9 feet

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

1-10	95	90	85	80	75	70	65	60	55	50
11-20	45	40	35	30	25	20	15	10	5	0

Solve each problem.

1) Every pint is 2 cups. This can be expressed using the equation y × 2 = Z, where y is equal to the number of pints and Z is equal to the total number of cups. Using this equation find the total cups in 7 pints.

2) For each pound there are 16 ounces. This can be expressed using the equation y × 16 = Z, where y is equal to the number of pounds and Z is equal to the total number of ounces. Using this equation find the total ounces in 3 pounds.

3) Every gallon is 4 quarts. This can be expressed using the equation y × 4 = Z, where y is equal to the number of gallons and Z is equal to the total number of quarts. Using this equation find the total quarts in 6 gallons.

4) Every quarter is 5 nickels. This can be expressed using the equation y × 5 = Z, where y is equal to the number of quarters and Z is equal to the total number of nickels. Using this equation find the total nickels in 7 quarters.

5) Every quart is 2 pints. This can be expressed using the equation y × 2 = Z, where y is equal to the number of quarts and Z is equal to the total number of pints. Using this equation find the total pints in 10 quarts.

6) Every yard is 3 feet. This can be expressed using the equation y × 3 = Z, where y is equal to the number of yards and Z is equal to the total number of feet. Using this equation find the total feet in 7 yards.

7) Every liter is 1,000 milliliters. This can be expressed using the equation y × 1,000 = Z, where y is equal to the number of liters and Z is equal to the total number of milliliters. Using this equation find the total milliliters in 6 liters.

8) Every kilometer is 1,000 meters. This can be expressed using the equation y × 1,000 = Z, where y is equal to the number of kilometers and Z is equal to the total number of meters. Using this equation find the total meters in 10 kilometers.

9) Every centimeter is 10 millimeters. This can be expressed using the equation y × 10 = Z, where y is equal to the number of centimeters and Z is equal to the total number of millimeters. Using this equation find the total millimeters in 4 centimeters.

10) Every quarter is 25 pennies. This can be expressed using the equation y × 25 = Z, where y is equal to the number of quarters and Z is equal to the total number of pennies. Using this equation find the total pennies in 7 quarters.

11) Every dollar is 4 quarters. This can be expressed using the equation y × 4 = Z, where y is equal to the number of dollars and Z is equal to the total number of quarters. Using this equation find the total quarters in 8 dollars.

12) Every cup is 8 ounces. This can be expressed using the equation y × 8 = Z, where y is equal to the number of cups and Z is equal to the total number of ounces. Using this equation find the total ounces in 4 cups.

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

1-10	92	83	75	67	58	50	42	33	25	17
11-12	8	0								