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## Mth 7/7+ Q3W2 Weekly Spiral Review

Due: 1/12
You must show work for EVERY problem to receive credit.

1. Simplify: $\frac{1}{2}(6 x-12)$ NO CALCULATOR. You must show your calculations to receive credit.
2. A square has a side length of $\frac{4}{19} x-9$ units. What is its perimeter in terms of x ?
3. Titus bought 2.4 pounds of apples for $\$ 1.50$ per pound. He also bought 2.5 pounds of cookies for $\$ 2.50$ per pound. Titus gave the cashier $\$ 20$ for the apples and cookies. How much change did he receive? NO CALCULATOR. You must show your calculations to receive credit.
4. What is the value of $x$ if $10-25 x=5$ ?
5. The formula for the perimeter of a rectangle is $P=2 L+2 W$. The perimeter of the rectangle below is 24 ft .


Perimeter $=24 \mathrm{ft}$
What is the width of the rectangle?
6. Mr. Harold's total pay for last week was $\$ 875$. He was paid $\$ 25$ per hour plus a bonus of $\$ 75$. How many hours did Mr. Harold work last week? You must write and solve an equation to receive credit.
7. If two-thirds of a number decreased by 20 is 40 , what is the number? You must write and solve an equation to receive credit.
8. Mrs. Trevino was asked to provide at least 120 bagels for a workshop. She already has 2 dozen bagels. Mrs. Trevino will buy the remaining bagels in packages of 6 . Which inequality shows all the values of $x$ if $x$ equals the number of packages of bagels she could buy, beginning with the minimum value of $x$ ? You must write and solve an inequality to receive credit.
A. $x \geq 16$
B. $x \geq 10$
C. $x \leq 12$
D. $x \leq 20$
9. Which values of $z$ make the inequality $3 z-1 \leq-7$ true ?
A. $z \leq-\frac{8}{3}$
B. $z \geq-\frac{8}{3}$
C. $z \leq-2$
D. $z \geq-2$
10. What are all possible values of $x$ if $\frac{2 x}{3}-5 \geq 18$ ?
11. What is the solution to the inequality $-3 x-10<6$ ?
12. Marie has a monthly cell phone plan that has a fixed charge of $\$ 12$ per month plus $\$ 0.10$ per text message. Marie wants to spend no more than $\$ 40$ per month on her cell phone. Which inequality represents the number of text messages, x , that Marie can use in a month? You must write and solve an inequality to receive credit.
A. $x \leq 250$
B. $x \leq 280$
C. $x \leq 400$
D. $x \leq 520$
13. Susan normally earns $\$ 300$ a month working part time at an appliance store. She worked 17 hours extra over the Thanksgiving holidays, for which she was paid $\$ 24.50$ per hour. What did she earn in that month? You must write and solve an equation to receive credit.

14 Three pies were made for a party. Each pie was cut into eight pieces.

- $3 / 8$ of the apple pie was left
- $1 / 2$ of the cherry pie was left
- $3 / 4$ of the pumpkin pie was left

How many total pieces of pie are left over?
15. A group of students and teachers are going on a field trip. One-ninth of the group will fit on $\frac{1}{3}$ of a school bus. How many buses are needed to transport the entire group?
16. One-sixth of a bag of bird seed fills a bird feeder $\frac{1}{2}$ of its capacity. How many times will a bag of bird seed completely fill the feeder?
17. Kendall used $\frac{1}{2}$ of a bag of seed to plant $\frac{1}{10}$ of her garden. How many bags will Kendall use to plant her garden?
18. Sally paid $\$ 1.50$ for $2 \frac{1}{2}$ pounds of apples at the Grocery Mart. Fred paid $\$ 1.95$ for 3 pounds of apples at the Corner Fruit Stand. Who paid less money per pound for their apples, Sally or Fred? Show the computations to find each unit rate.
19. The table shows distances run by Jeremy and Mateo in particular amounts of time.

## Running Data

|  | Distance <br> (in miles) | Time <br> (in hours) |
| :--- | :---: | :---: |
| Jeremy | $\frac{3}{4}$ | $\frac{1}{6}$ |
| Mateo | $\frac{1}{2}$ | $\frac{1}{12}$ |

Part A What is Jeremy's running rate, in miles per hour?
Part B What is Mateo's running rate, in miles per hour?
20. Which two quantities form a proportional relationship?
A. $\frac{1}{4}$ and $\frac{3}{8}$
B. $\frac{2}{15}$ and $\frac{3}{30}$
C. $\frac{5}{6}$ and $\frac{5}{24}$
D. $\frac{10}{18}$ and $\frac{45}{81}$

