1. Julie purchased a pair of pants that originally cost $\$ 50$. The pants were discounted $20 \%$, and sales tax is $5 \%$. Which expression would calculate the total cost of the pants?
A. $50(0.25)$
B. $50(0.75)$
C. $50(0.8)(0.95)$
D. $50(0.8)(1.05)$
2. A car is traveling at a speed of $y$ miles per hour. Which situation would be described by the expression 1.2 y
A. the speed of the car after it is increased by $2 \%$
B. the speed of the car after it is increased by $20 \%$
C. the speed of the car after it is increased by 0.2 miles per hour
D. the speed of the car after it is increased by 2.0 miles per hour
3. Hugo wants to add to his savings over the next 8 weeks. His goal is to have more than $\$ 200$ by that time. Hugo currently has $\$ 184$. Which inequality can be used to determine the average number of dollars, $d$, Hugo needs to save each week?
A. $\frac{184+d}{8}>200$
B.
$184+d>200$
C. $184+\frac{d}{8}>200$
D. $184+8 d>200$
4. In the inequality $10 x+18 \leq 238$, $x$ represents the number of days Matt will be able to work during the summer. Which phrase most accurately describes that number of days?
A. exactly 22 days
B. at most 22 days
C. less than 22 days
D. more than 22 days
5. Patricia has $\$ 12$ to spend at an arcade. The arcade charges $\$ 6$ admission and $\$ 3$ per hour to play as many games as she wants. Which inequality can be used to find any possible number of hours, $x$, Patricia can play games without spending more than $\$ 12$ ?
A. $6+3 x \leq 12$
B. $6-3 x \leq 12$
C. $12 \leq 6+3 x$
D. $12 \leq 6-3 x$
6. Which graph shows the solution to the inequality $-2 x \leq-10$ ?
A.

C.

B. $\begin{array}{lllllllllllll}+ & 1 & 1 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & \\ 0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10\end{array}$
7. Benito earns $\$ 250$ per week giving surfing lessons plus $\$ 75$ for each surfboard he sells. If Benito wants to earn at least $\$ 500$ this week, which inequality could be solved to find $x$, the number of surfboards he needs to sell?
A. $250+75 x \geq 500$
B. $250+75 x \leq 500$
C. $250 x+75 \leq 500$
D. $250 x+75 \geq 500$
8. Mike put $\$ 3,000$ in a savings account at a simple interest rate of $4 \%$. If Mike does not add or remove any money from the savings account, about how much money will Mike have in his savings account after 8 years?
9. Last year, Maria had 3 dogs and Tessa had 5 dogs. This year, Maria has 6 dogs and Tessa has 2 dogs. What is the difference between the percent increase in dogs for Maria, and the percent decrease in dogs for Tessa?
10. Emily is enrolled in a science class that lasts 90 minutes. If she attends her science class each Tuesday and Thursday for 4 weeks, how many hours of science class will she attend in all?
11. If the price of a CD that normally costs $\$ 17.50$ was marked up by $8 \%$, what is the new cost?
12. Mrs. Washington left a $15 \%$ tip for a dinner that cost $\$ 36.80$. About how much tip did Mrs. Washington leave?
13. Three out of every five people who bought a new vehicle last year bought a 4 -wheel-drive vehicle. If 2100 people purchased a vehicle last year, how many vehicles did not have 4 -wheel drive?
14. A manufacturer states that a new box of crackers has $40 \%$ more crackers than their regular box, which contains 50 crackers. How many crackers are in the new box of crackers?
15. Stickers are given to every third student entering the cafeteria. Cookies are given to every fifth student entering the cafeteria. What is the likelihood of receiving both a sticker and a cookie?
A. impossible
B. unlikely
C. likely
D. certain
16. Kathy spins the spinner below 120 times.


How many times is the spinner expected to land on yellow?
17. In a store, a sample of 60 pens was selected from a box of 1,200 pens. Of these 60,4 pens did not work. About how many pens could be expected to not work in the group of 1,200 pens?
18. Susan has a number cube labeled 1 to 6 . She will roll the cube 100 times. How many times could Sue expect to roll an even number?
19. Esme has 1,200 songs saved on her phone. The types of songs are listed in the table.

| Music <br> Type | Number of <br> Songs |
| :--- | :---: |
| rap | 195 |
| rock | 266 |
| pop | 315 |
| country | 424 |

If Esme's phone is set to randomly select music, about how often can she expect to hear a rock song?
A. one out of every six songs
C. one out of every four songs
B. one out of every five songs
D. one out of every three songs
20. Mrs. Garcia has 20 students in her class. Only 12 of these students ride the bus. If she randomly selects a student to bring a snack for the class, what is the probability Mrs. Garcia will choose a student who does not ride the bus?

