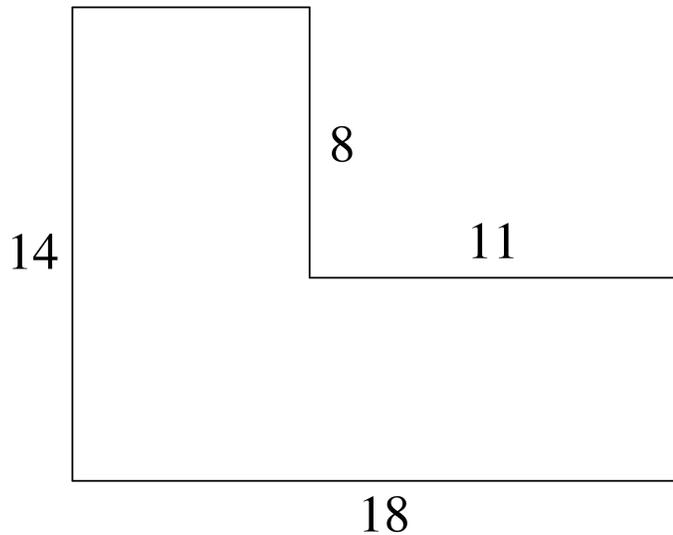


- (2 points)** Let A be the area of a rectangle with sides 3 and 5. Let B be the perimeter of the same rectangle. Express $\frac{B}{A}$ as a mixed number in simplest form.
- (2 points)** Compute the value of $(17 - 9) \times 2 + 62 \div 12$. Write your answer as an improper fraction.
- (2 points)** Compute the value of $\frac{2}{3} \times \frac{7}{2} - \frac{8}{9} \times \frac{3}{2}$.
- (2 points)** Superman and Captain Marvel are having a contest to see who can lift a heavier load. Superman lifts 12000 lbs. and Captain Marvel lifts 5400 kg. If $1 \text{ kg} \approx 2.2 \text{ lbs}$, who wins the contest?
- (3 points)** Find the sum of the area and the perimeter of the following figure. Assume all angles are right angles.



- (3 points)** Usain Bolt runs four races. His times were 9.63 seconds, 19.32 seconds, 9.75 seconds, and 19.44 seconds. Calculate the sum of these 4 race times in seconds.
- (3 points)** Find the least common multiple of 12, 16, and 22.
- (3 points)** John likes to wear a different colored hat each day of the week. On Mondays he wears a red hat, on Tuesdays he wears an orange hat, on Wednesdays he wears a yellow hat, on Thursdays he wears a green hat, on Fridays he wears a blue hat, on Saturdays he wears an indigo hat, and on Sundays he wears a violet hat. Today he will be wearing an indigo hat. What color hat will he be wearing in 94 days from today?
- (4 points)** Han Solo, Luke Skywalker, Lando Calrissian, Chewbacca, and Boba Fett are having a contest to see who can shoot their blaster the quickest. If Boba Fett shoots before exactly two others, Chewbacca shoots before Luke but after Han, and Lando did not shoot before Boba, then who shot first?

10. (4 points) Sumkats daily outfit consists of a shirt, pants, and a pair of shoes. He has 11 shirts, 7 pants and 3 pairs of shoes. How many different possible outfits does Sumkat have?
11. (4 points) Stephen has a bag that contains 3 red marbles, 6 green marbles, and 12 blue marbles. Suppose he randomly draws 1 marble from the bag.

- A = The probability that the marble is red.
 B = The probability that the marble is green.
 C = The probability that the marble is blue.

Find $A \times B + C$

12. (4 points) Let

- A = The number of prime numbers between 1 and 20.
 B = The number of sides in a heptagon.
 C = The value of $3 \times 2 + 8 \div 4$.
 D = The area of a circle with radius 3, rounded to the nearest whole number. Let $\pi = 3.14$.

Find $AC - \frac{D}{B}$

13. (5 points) A frog is leaping forward on a log. The log is 32 feet long. The frog leaps 7 feet forward but then slides back 2 feet each time. How many leaps does it take for the frog to get to the end of the log? He does not slide back the last time.
14. (5 points) Linda and Pamela go to Nuberri to buy frozen yogurt. They each buy a bowl of frozen yogurt, which is sold by the ounce. Pamela buys 5 more ounces of frozen yogurt than Linda does. If frozen yogurt costs 45 cents per ounce, and the girls spend \$12.15 total, how many ounces of frozen yogurt does Linda buy? (Assume no sales tax.)
15. (5 points) After watching the 2012 London Olympics, Siddarth thinks that he can run faster than Usain Bolt. He runs 100 meters 5 times. His 5 running times were 29.53 seconds, 31.24 seconds, 33.97 seconds, 31.15 seconds, and 35.86 seconds. Usain Bolt ran 100 meters in 9.63 seconds. What is the positive difference between Usain Bolt's time and Siddarth's average time for the 100 meters?