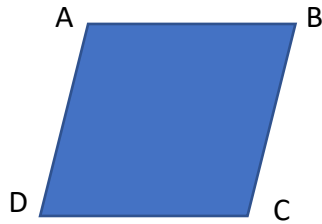


Place all answers in the blank spaces provided. Calculators are permitted. You are not expected to answer all the questions. Give Simplified exact answers.

1. \_\_\_\_\_

1. Given a parallelogram ABCD. The angle A is four times that of the angle D. Find the measure of the angle C.



2. \_\_\_\_\_

2. The cost of apricots is \$1.50 per pound. The cost of cherries is \$1.80 per pound. By what percent are cherries more expensive than apricots?

3. \_\_\_\_\_

3. If one letter in the word "MATHEMATICS" was chosen at random, then find the probability that the letter is a vowel. Write the answer in a fraction form.

4. \_\_\_\_\_

4. After two pedestrians met on the intersection, they continued walking away from each other on perpendicular roads with the speed of 4 miles per hour and 3 miles per hour respectively. What would the distance (in miles) be between those pedestrians in 45 minutes?

5. \_\_\_\_\_

5. Simplify:  $\frac{2^{2n+3} \cdot 3^{3n-1}}{4^n \cdot 27^{n-1}}$

6. \_\_\_\_\_

6. During a sale, the price of a TV was discounted twice: the first time by 10% and the second time by 5%. If originally, the price of the TV was 6000 dollars, what is the TV price after the second discount?

7. \_\_\_\_\_

7. The area of the circle is  $\frac{11}{\pi}$ . Find the circumference of this circle.

8. \_\_\_\_\_

8. A company estimates that 0.4% of the watches they produced will fail. Find the probability that a purchased watch from this company will work without technical problems.

9. \_\_\_\_\_

9. Alice and Bob worked together and completed the job in 1 hour and 20 minutes. Bob and Calvin could complete the same job in 2 hours and 40 minutes. But Alice and Calvin could complete this job in 1 hour and 36 minutes. How many hours would it take for Calvin to complete this job by himself?

10. \_\_\_\_\_

10. How many ways can 8 math textbooks be arranged on a shelf?