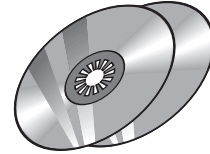




Warm-Up 9

1. _____ CDs At a discount store, Marti bought some CDs for \$8 each and some books for \$9 each. She spent \$120 in all on a tax-free holiday. What is the fewest number of CDs she could have bought?

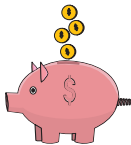


2. _____ Four-fifths of the children in a school are boys and one-fifth are girls. On Monday, three-quarters of the boys are gone on a field trip and the rest of the children remain in school. If no one is absent, what fraction of the children remaining in school on Monday are girls? Express your answer as a common fraction.



3. _____ years Six years from now, Paul's age will be eight years less than twice Molly's age then. Six years ago, Paul was three times as old as Molly was then. What is Molly's current age?

4. _____ dimes



Celeste has twenty-seven coins in her piggy bank. They consist of nickels and dimes. Their value is \$2.10. How many more dimes than nickels does she have?

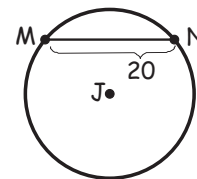
5. _____ sq cm Four circles, each of radius 1 cm, have their centers at the vertices of a square that has sides of length 2 cm. What is the area inside the square but outside all four circles? Express your answer in terms of π .

6. _____ marbles A box contains green and yellow marbles with at least three yellow marbles and more greens than yellows. Three marbles are drawn without replacement and the probability that all are green is twice the probability that all are yellow. What is the smallest number of marbles that the box could have contained originally?

7. _____ A rectangular birthday cake measures 12 inches by 24 inches and is 3 inches high. A thin layer of frosting is placed evenly on the top and the four sides of the cake. What fraction of the frosting on the cake is on the top of the cake? Express your answer as a common fraction.

8. _____ miles Avi drove one-third of the total distance of a trip at 45 miles per hour and then drove the rest of the trip at 60 miles per hour. The whole trip took two hours. How many miles long was the whole trip?

9. _____ cm Circle J has a radius of 13 cm. If the length of chord MN is 20 cm, as shown, what is the distance to the center of the circle from chord MN? Express your answer in simplest radical form.



10. _____ If x is a positive, real number for which $x^2 + \frac{1}{x^2} = 98$, what is the value of $x + \frac{1}{x}$?