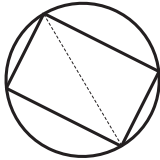# Warm-Up 8

101._____ The greatest common factor of 42 and 24 is m. What is the least common multiple of m and 15?

102._____degrees Circle P has diameter CD. Point B is on the circle such that $m\angle BPC = 30$ degrees. Point A is on the circle such that $\overline{AD}$ is parallel to $\overline{PB}$. What is the degree measure of arc ABC?

103._____units Points A, B, C, D and E are collinear. If AB = 6, B is the midpoint of line segment AD, D is three-fourths the way from A to E and C is one-fifth the way from B to E, what is CE?

104._____ What integer is closest to the value of $\dfrac{999}{200} + \dfrac{898}{301} + \dfrac{797}{402} + \dfrac{696}{503}$?

105._____ What is the value of $\dfrac{1000^2}{252^2 - 248^2}$?

106._____units² The figure shows a rectangle inscribed in a circle. If the rectangle has integer sides and integer diagonal lengths, what is the smallest possible area of the rectangle?

107._____pennies On March 1st, Kenny and Linny had jars containing the same number of pennies. One month later, Kenny has two more than three times Kenny's original number of pennies, while Linny has seven fewer than four times Linny's original number. If Linny has eight more pennies than Kenny, how many pennies did they each start with on March 1st?

108._____minutes A train departs D.C. at 8:15 a.m. EST and arrives in New York City at 12:05 p.m. EST on the same day. How many minutes was the train ride?

109._____ If $(x^2y^3)^4(x^4y^5)^6 = x^a y^b$ for all real numbers x and y, what is the sum of a and b?

110._____ What is the value of $11{,}111{,}111 - 2{,}222{,}222 + 333{,}333 - 44{,}444 + 5555 - 666 + 77 - 8$?