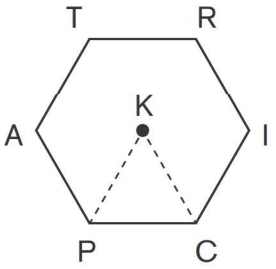
Workout 3

161. _____ cm^2 A rectangle has area 20 cm^2 and perimeter 26 cm. If each of its side lengths is increased by 1 cm, how many square centimeters are now in its area?

162. _____ in^2 Regular hexagon PATRIC has center K. If heptagon PATRICK has perimeter 28 inches, how many square inches are in its area? Express your answer in simplest radical form.



163. _____ ways How many ways are there to rearrange the letters in the word TOPOLOGY?

164. _____ If d distinct positive integers sum to 27 for some positive integer d, what is the sum of the possible values of d?

165. _____ $units^2$ The graphs of $x + 2y = 4$ and $3x + 5y = 9$ intersect at $(-2, 3)$. What is the area of the triangle formed by these two lines and the x-axis? Express your answer as a common fraction.

166. _____ cm^2 George has a right rectangular prism with three distinct integer edge lengths, and its volume is 2026 cm^3. In square centimeters, what is the surface area of George's prism?

167. $_____ During their fundraiser, the math club kept track of how many bags of each type of popcorn they sold. The results are shown in the table below. In dollars, how much did the math club earn from selling popcorn?

Popcorn Type	Kettle	Sea Salt	Cheddar	Butter	Spicy Herb
Number Sold	12	13	21	11	16
Price per Bag	$3.50	$2.75	$4.00	$2.75	$3.50

168. _____ digits The sum of the digits of an integer N is 2026. What is the minimum number of digits that N has?

C 169. _____ If $x \clubsuit y = \frac{x^2}{y}$, what is the value of $6 \clubsuit 4$?

C 170. _____ hours Sam reads an average of 8 pages of a book in 10 minutes. At this rate, how many hours will it take Sam to read the entire 192-page book?