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How many chickens are there? (A chicken has 2 legs and a dog has 4.)

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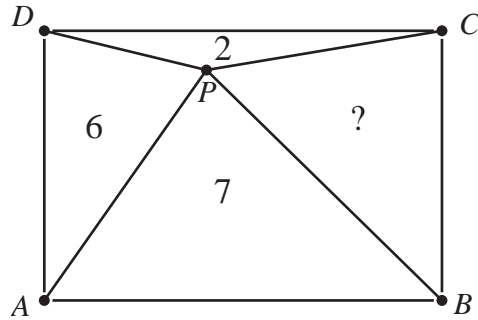
Problem 4. Express $\sqrt{3 - 4i}$ in the form $a+bi$ with $a > 0$. (Here, $i = \sqrt{-1}$.)

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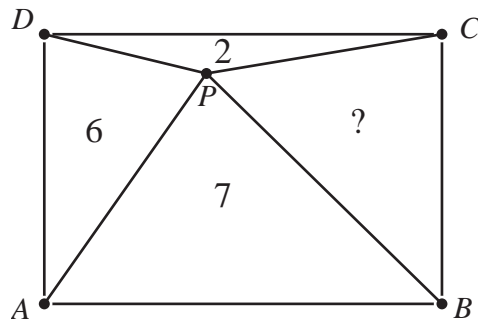
Problem 5. In the alphabet of the Mumbo-Jumbo tribe there are 3 letters. A word is any sequence of these letters which is 4 letters or shorter. How many words are there in the language of Mumbo-Jumbo?

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Problem 6. Point P is inside rectangle $ABCD$. In sq. units, the areas of $\triangle APB$, $\triangle APD$, and $\triangle CPD$ are 7, 6, and 2, respectively. Find the area of $\triangle BPC$.



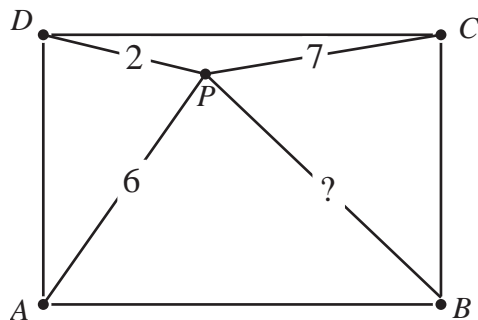
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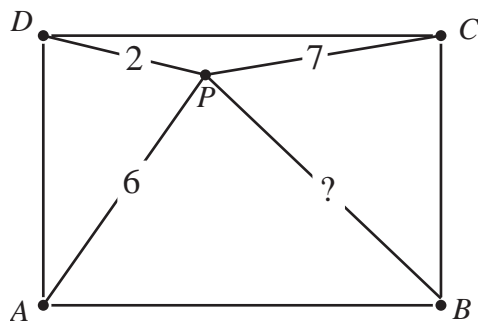
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Problem 8. Point P is inside rectangle $ABCD$. $AP = 6$, $DP = 2$, and $CP = 7$. Find BP .



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Problem 9. How many zeros are at the end of the base three decimal for $27!$?

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Problem 10. What is the smallest integer $n > 2$ for which the fraction

$$\frac{n - 2}{n^2 + 13}$$

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