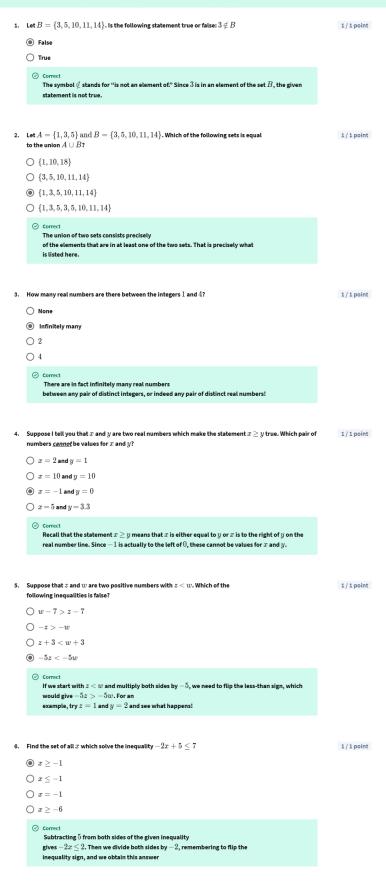
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Next item →



7. Which of the following real numbers is not in the closed interval $\left[2,3\right]$ ① 1

1/1 point

O 2.1

	() 2 () 3	
	\odot correct Recall that the closed interval $[2,3]$ consists of all real numbers x which satisfy $2\leq x\leq 3$. Since $2\leq 1$ is false, $1\notin [2,3]$	
	Which of the following intervals represents the set of all solutions to: $-5 \le x+2 < 10?$ \bullet $[-7,8]$ \circ $[-5,10)$	1/1 point
	$ \begin{tabular}{ll} \hline $(7,8)$ \\ \hline \hline \odot correct \\ \hline Subtracting 2 from all sides of the inequalities gives $-7 \le x < 8$, and the set of all real numbers x which make that true is exactly the half-open interval $[-7,8)$. \end{tabular} $	
9.	Which of the numbers below is equal to the following summation: $\Sigma_{k=2}^5 2k$?	1/1 point
	2814104	
	\odot correct	
	Suppose we already know that $\Sigma_{k=1}^{20}k=210$. Which of the numbers below is equal to $\Sigma_{k=1}^{20}2k$? @ 420 2 210	1/1point
	\bigcirc 40 \bigcirc correct By applying one of our Sigma notation simplification rules, we can rewrite the summation in question as $2\left(\Sigma_{k=1}^{20}k\right)=2\times210=420.$	
	Which of the numbers below is equal to the summation $\Sigma_{i=2}^{10} 7$?	1/1point
	\odot Correct According to one of our Sigma notation simplification rules, this summation is just equal to 9 copies of the number 7 all added together, and so we get $9\cdot 7=63$.	
	Which of the following numbers is the variance of the set $Z=\{-2,4,7\}$?	1/1point
	⊘ Correct To get the variance of a set of numbers, you need to perform four steps:	
	First compute the mean (which is 3)	
	Then calculate all the squared differences between the numbers in the set and this mean (here you get $25,1,16$)	
	Then add all these up (here you get 42) $ \label{eq:continuous} $ Then divide by the number of elements in the set (which is 3).	
	Therefore, the variance of ${\it Z}$	
	$=\frac{1}{3}\left[(-2-3)^2+(4-3)^2+(7-3)^2\right]$	
	$=\frac{1}{3}\left[25+1+16\right]=\frac{42}{3}=14$	