Name: 

Grade 9 - Benchmark 1
Constructed Response

Solve the problem below. Show your work in the box.

Paxolai purchases a video game that costs $45.00. She uses two coupons when she buys the video game. The first coupon gives 25% off of the price. The second coupon is for $5.00 off the price of any video game. When the clerk rings up Paxolai's purchase, he takes the $5.00 off first and then applies the 25% discount.

Would the price that Paxolai paid for the video game have increased, decreased, or stayed the same if the clerk had taken off the 25% discount first and then taken off the $5.00 coupon?

Answer: Decreased

Explain how you derived your answer.

When the 5 dollars was taken off the price of the video game became 40$ and then the 25% which made it 30$ because 25% of 40$ is 10$ which would be taken off. 25% of 45$ is 11.25$ which makes the price 33.65$ than 5$ taken off making the price 28.65$ and it would be a lot cheaper, also saving 1.35$. 

Student A
Grade 9 - Benchmark 1  
Constructed Response

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Would the price that Paxolai paid for the video game have increased, decreased, or stayed the same if the clerk had taken off the 25% discount first and then taken off the $5.00 coupon?

Answer: 18.74

Explain how you derived your answer.

\[
\begin{align*}
45.00 \times 0.25 &= 11.25 \\
45.00 - 11.25 &= 33.75 \\
33.75 - 5.00 &= 28.75
\end{align*}
\]

First, I multiplied to 45.00 by 0.25 to get the sales tax. Then I subtracted $45 by the sales tax which came out to be 23.74. Finally, I subtracted the $5.00 coupon to get 18.74.
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Answer: Decreased

Explain how you derived your answer.

\[ \frac{45.00}{1.25} = 36.00 \]
\[ 36.00 - 5.00 = 31.00 \]

\[ \text{Answer: Decreased} \]
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Would the price that Paxolai paid for the video game have increased, decreased, or stayed the same if the clerk had taken off the 25% discount first and then taken off the $5.00 coupon?

Answer: Decreased.

Explain how you derived your answer.

If you take the 25% off first, your taking away from the original price so it changes everything.
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Would the price that Paxolai paid for the video game have increased, decreased, or stayed the same if the clerk had taken off the 25% discount first and then taken off the $5.00 coupon?

Answer: The price would have decreased.

Explain how you derived your answer.

\[
\frac{x}{45.00} = \frac{25\%}{100\%}
\]

\[
\frac{2}{45} \cdot \frac{25}{100} = \frac{10}{25} = \frac{100}{250}
\]

The total price would be $40.00 with the coupon only, and with the second coupon, the total would be $20.00.
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Would the price that Paxolai paid for the video game have increased, decreased, or stayed the same if the clerk had taken off the 25% discount first and then taken off the $5.00 coupon?

Answer: decrease

Explain how you derived your answer.

The first way which was $41.5,
then when you take off the five dollars you get 40. ($45 - 5 = 40), then you take off 25%, which gives you $10. ($40 \div 4)

The 2nd way which was $41.5, then you take off 25%. ($41.5 \div 4) you get 11.
Then you take off 5 and so you have $6. so it decreases.