

Horsin' Around: POW One

Zachary travels on a journey of 50 miles. He spends half of his time riding his horse and half of his time walking. When he rides his horse, he covers 9 miles every hour. When he walks, he covers $3\frac{1}{2}$ miles every hour. How long does it take him to complete the journey?



Be sure to explain your strategy and how you know your answer is correct.

Extra: How many miles does he travel by horseback? How many miles does he walk?

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Student Solutions: POW One (Horsin' Around)

Solution #	Student Solution
1. Camille	<p>Solution: 15 hours</p> <p>Explanation: He walked half of the time at a rate of 3.5 mph which would take 14 hours to do the whole thing.</p>
2. Sarah	<p>Solution: It would take him about 9 hours to complete his journey.</p> <p>Explanation: What I did was I added 9, 9, and 9 and got 27 miles and that's 3 hours. The I added 3 1/2, 3 1/2, 3 1/2, 3 1/2, 3 1/2, 3 1/2 and got 24 miles which is 6 hours. And if you add 27 and 24 you get 51 miles. Which is a little over 50 miles.</p>
3. Heidi	<p>Solution: 50mi divided by 2 =25 divided 9=2.7 hr to go 25 miles 25 divided 3.5=7.14 hr walk 7.14+2.7=9 hr and 84 min to complete his journey</p> <p>Explanation: Since he spent half of his time riding on horseback and half walking I divided the amount of miles he traveled 50 mi by 2 because its half and got 25. then divided it by 9 because it would give the amount of miles traveled on horseback and got 2.7 hr. Then i took the other half and divided it by 3 and a half to get how many hours. Finally i added 2.7+7.14 and got 9 hours and 84 minutes.</p>
4. Sara	<p>Solution: The answer that i got was 8 hours.</p> <p>Explanation: First i saw how many miles they went in one hour and i got six and one quarter of a mile. Therefore i got 8 hours.</p>
5. Alex	<p>Solution: Zachary traveled 25 miles on horseback at 9 miles per hour. It took him 3 hours. He traveled 25 miles walking at 3 and half miles per hour. It took him 7 hours. The journey took him 10 hours.</p> <p>Explanation: I divided 50 miles by 2 = 25 miles (walked) 25 miles (horseback) I divided 25 by 3 and half = 7 I divided 25 by 9 = 3 Added together = 10</p>

Student Solution Analysis: POW One (Horsin' Around)

1. What do you notice about the student's solution: What does the student understand? What are the student's main problems? List at least 5 items.
2. Is there anything you're wondering about?
3. Create a list of questions that might help the student to learn something past what s/he already knows. If the answer is wrong, ask questions that will lead the student in the correct direction using their own strategy if possible. If the answer is correct, ask questions that will help improve their explanation or extend their knowledge. List *at least* 5 questions.
4. Of the questions listed in 3, choose two that you think would most help move your student along. Explain what you hope those questions would lead the student to do

