Work Problems: $\frac{Together}{Alone} + \frac{Together}{Alone} = 1\ job\ completed$

RULES FOR SOLVING WORK PROBLEMS:

1. **To solve work problems, you need to work with the same unit of measure within each problem. For example, you cannot mix hours and minutes in the same equation.**
2. **You need to find the fractional part of the job that would be done in one unit of time, such as 1 minute or 1 hour. If a person can do a complete job in 3 days, he can do 1/3 of it in 1 day.**

Example: Mark can dig a ditch in 4 hours. Greg can dig the same ditch in 3 hours. How long would it take them to dig it together?

1. Write an equation: $\frac{Together}{Alone} + \frac{Together}{Alone} = 1$ OR $\frac{T}{A} + \frac{T}{A} = 1$

2. Substitute your values in the equation:

3. Solve!

Try These!!!

1. Jaron can paint a fence in 3 hours and his friend Tyrek can paint it in 5 hours. How long would it take them to do the job if they work together?

2. It takes Ashly 3 days to cultivate the garden. It takes Ivanna twice as long to do the same job. How long does it take them to do the job if they work together?

3. Heckel can plow a field in 6 hours. If his brother Jeckel helps him, it will take 4 hours. How long would it take Jeckel to do the job alone?

4. Jordan can paint a fence in 8 hours. Kejuan can paint the same fence in 4 hours. How long will it take them to do the job if they work together?

5. If Dal can build a doghouse in 5 hours, and together he and Yves can build it in 2 hours, how many hours would it take Yves alone to build the same doghouse?

6. One machine can complete a job in 10 minutes. If this machine and an older machine do the same job together, the job can be completed in 6 minutes. How long would it take the older machine to do the job?

7. Working alone, Janell can pick 40 bushels of apples in 11 hours. Shanice can pick the same amount in 14 hours. How long would it take them if they worked together?