

MATHCOUNTS 2022–2023 Handbook Poster Solution



Oscar takes **6 hours** to make space rover repairs that Karina can do in **half that time**. How many hours will it take them **working together**?

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Oscar makes rover repairs in 6 hours, which means he completes $\frac{1}{6}$ of the repairs per hour. Karina makes the same rover repairs in $6 \div 2 = 3$ hours, meaning she completes $\frac{1}{3}$ of the repairs per hour. Working together, Oscar and Karina complete $\frac{1}{6} + \frac{1}{3} = \frac{(1 + 2)}{6} = \frac{3}{6} = \frac{1}{2}$ of the rover repairs per hour. Therefore, to complete the rover repairs working together will take **2** hours.