

7.4 Exercises

1. Give an example of adding fractions and an example of multiplying fractions.
2. Simplify $\frac{6x^3y^3}{9x^5y}$. Check your answer by evaluating at appropriate values.
3. Simplify $\left(\frac{6x^3y^{-3}z^{-4}}{9x^{-5}yz^{-3}}\right)^{-2}$. Check your answer by evaluating at appropriate values.
4. Subtract and reduce: $\frac{7}{9x^2y} - \frac{3}{2xy^2}$. Check your answer by evaluating at an appropriate value.
5. Simplify $\frac{x-1}{(x+2)(x+1)} - \frac{2}{x(x+1)}$. Check your answer by evaluating at an appropriate value.
6. Simplify $\frac{x^2-x}{x^2-2x-3} \cdot \frac{x^2-2x}{4x^2-4}$. Check your answer by evaluating at an appropriate value.
7. Simplify $\frac{s-s^{-2}}{s^{-1}-s^2}$. Check your answer by evaluating at an appropriate value.
8. Simplify $\frac{\frac{2}{x-2} + \frac{1}{x+2}}{1 - \frac{x}{2-x}}$. Check your answer by evaluating at an appropriate value.
9. Write an expression that represents the number of tasks per hour completed by a team consisting of Moira and Shelley if it takes Moira twice as long as it does Shelley to complete the task alone. Test your expression using a problem that you can figure out the answer without using your expression.