

## Exercises – Polynomial fractions

1.  $\frac{x^2-9}{3x^2} = \frac{x-3}{x}$
2.  $\frac{x}{x-1} = \frac{3x^2}{x-2}$
3.  $\frac{x+1}{x-1} = \frac{1}{x-2}$
4.  $\frac{x+1}{x-1} + \frac{x}{x+1} = 9$
5.  $\frac{2x+1}{x} = \frac{7}{x-1}$
6.  $\frac{2x^2+1}{x} + \frac{1}{x-1} = 3$
7.  $\frac{1}{x+1} - 1 = \frac{-x}{x+2}$
8.  $\frac{1}{x-2} + \frac{2}{x+3} = \frac{3}{x^2+5x-6}$
9.  $\frac{2x}{x^2-4} = \frac{3x}{x^2-3x+2}$
10. Several students plan a party that costs \$120.00. Two new students decide to contribute to the party. This decreases the cost per student by \$10.00. How many students were in the original group?
11. Achilles and Mr. Tortoise have a 10 mile race. Achilles maintains a speed that is 5 miles per hour faster than Mr. Tortoise and finishes 1 hour before Mr. Tortoise. How fast was Achilles traveling?