The following table shows some expressions that are not polynomials.

Expression	Reason it is not a polynomial
$3\sqrt{x}+7$	The variable in $3\sqrt{x}$ is inside a radical. Written in exponential form, $\sqrt{x}=x^{\frac{1}{2}}$. The exponent is not a whole number.
$12+x+\frac{3}{x}$	The variable in $\frac{3}{x}$ is in the denominator. Written in exponential form, $\frac{3}{x}=3x^{-1}$. The exponent is not a whole number.
$5x^3+3x+8x^{-2}$	The variable in $8x^{-2}$ has a negative exponent.

Check Up

1. Give an example of a monomial, a binomial, and a trinomial.

Compare your answers.

1. Give an example of a monomial, a binomial, and a trinomial.

   Examples will vary. A sample is shown.

   $5x^2$ is a monomial, $3x+1$ is a binomial, and y^3+4x-9 is a trinomial.