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## Advanced Algebra

## Unit 4 Quadratics:

Solve the following quadratic equations by whichever method seems easiest. You can get imaginary roots.

1) $8 x^{2}=7-10 x$
2) $4 x=1+15 x^{2}$
3) $(3 x-2)^{2}=121$
4) $(4 y+4)^{2}=-16$
5) $(4 x+7)(x-1)=2(x-1)$
6) $(2 x+1)(4 x-3)=3(4 x-3)^{2}$
$\frac{x+3}{x-3}+\frac{x-3}{x+3}=\frac{18-6 x}{x^{2}-9}$
$\frac{x+2}{x^{2}-x-6}=3-\frac{4}{x-3}$
