Simplifying Radicals Worksheet

Simplify:

$\sqrt{4}$	$\sqrt{27}$	$\sqrt{72}$	$\sqrt{32}$
$\sqrt{98}$	$\sqrt{200}$	$\sqrt{20}$	$\sqrt{24}$
$5\sqrt{18}$	$\sqrt{4+9}$	$\sqrt{3^2+4^2}$	$\sqrt{5^2+12^2}$
$\frac{1}{6}\sqrt{48}$	$\sqrt{49(3)}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{\sqrt{5}}$
$\frac{4}{\sqrt{2}}$	$\frac{6}{\sqrt{3}}$	$\sqrt{\frac{2}{3}}$	$\sqrt{\frac{6}{7}}$
$4\sqrt{3}+7\sqrt{3}$	$\sqrt{12}+\sqrt{27}$	$\sqrt{72}+\sqrt{75}-\sqrt{48}$	

Solve for x.

$x^2=25$	$x^2=144$	$x^2=169$	$x^2=\frac{1}{4}$
$x^2=12$	$x^2=18$	$x^2=54$	$x^2=72$
$x^2+16=25$	$x^2+6^2=100$	$x^2+\left(3\sqrt{3}\right)^2=36$	$x^2=\left(5\sqrt{3}\right)^2+\left(\sqrt{5}\right)^2$
$x^2-5x-6=0$	$x^2+4x-12=0$	$x^2-18-3x=0$	$x^2-36=9x$
$x^2-4x=0$	$x^2=10x$	$x^2-2x=11x$	$5x=x^2-3x$