Name:

UNIT 8 DAY 4 - HOMEWORK

PAGE 521 #9-14

(9) $x^2-12x+36=0$

$x=\frac{12\pm\sqrt{(-12)^2+-4(1)(36)}}{2(1)}$

$x=\frac{12\pm\sqrt{144-144}}{2}$

$x=\frac{12\pm\sqrt{0}}{2}$ $\boxed{x=6}$

(10) $x^2+7x+16=0$

$x=\frac{-7\pm\sqrt{(7)^2+-4(1)(16)}}{2(1)}$

$x=\frac{-7\pm\sqrt{49+-64}}{2}$

$x=\frac{-7\pm\sqrt{-15}}{2}$ $\boxed{x=\text{no real SOL}}$

(11) $x^2-10x-11=0$

$x=\frac{10\pm\sqrt{(-10)^2+-4(1)(-11)}}{2(1)}$

$x=\frac{10\pm\sqrt{100+44}}{2}$

$x=\frac{10\pm\sqrt{144}}{2}$ $x=\frac{10\pm12}{2}$ $\boxed{\begin{array}{l}x=11\\x=-1\end{array}}$

(12) $2x^2-x-1=0$

$x=\frac{1\pm\sqrt{(-1)^2+-4(2)(-1)}}{2(2)}$

$x=\frac{1\pm\sqrt{1+8}}{4}$

$x=\frac{1\pm\sqrt{9}}{4}$ $x=\frac{1\pm3}{4}$ $\boxed{\begin{array}{l}x=1\\x=-\frac{1}{2}\end{array}}$

(13) $2x^2-6x+5=0$

$x=\frac{6\pm\sqrt{(-6)^2+-4(2)(5)}}{2(2)}$

$x=\frac{6\pm\sqrt{36+-40}}{4}$ $x=\frac{6\pm\sqrt{-4}}{2}$

$\boxed{x=\text{no real SOL}}$

(14) $9x^2-6x+1=0$

$x=\frac{6\pm\sqrt{(-6)^2+-4(9)(1)}}{2(9)}$

$x=\frac{6\pm\sqrt{36-36}}{18}$

$x=\frac{6\pm\sqrt{0}}{18}$ $x=\frac{6}{18}=\boxed{\frac{1}{3}}$