Algebra RH ANSWER KEY HW# _____

1) $y^2+8y=10$ $y^2+8y+16=10+16$ $(y+4)^2=26$ $y+4=\pm\sqrt{26}$ $y=-4\pm\sqrt{26}$ $y=-4+\sqrt{26}$ ➔ 1.1 $y=-4-\sqrt{26}$ ➔ -9.1 **{1.1, -9.1}**	2) $c^2+18c-175=0$ $c^2+18c+81=175+81$ $(c+9)^2=256$ $c+9=\pm16$ $c=-9\pm16$ $c=-9+16$ ➔ 7 $c=-9-16$ ➔ -25 **{7, -25}**
3) $z^2-6z-307=8$ $z^2-6z+9=307+8+9$ $(z-3)^2=324$ $z-3=\pm18$ $z=3\pm18$ $z=3+18$ ➔ 21 $z=3-18$ ➔ -15 **{21, -15}**	4) $2b^2+16b=4$ $b^2+8b=2$ $b^2+8b+16=2+16$ $(b+4)^2=18$ $b+4=\pm\sqrt{18}$ $b=-4\pm3\sqrt{2}$ $b=-4+3\sqrt{2}$ ➔ 0.2 $b=-4-3\sqrt{2}$ ➔ -8.2 **{0.2, -8.2}**
5) $w^2+w=3$ $w^2+w+\frac{1}{4}=3+\frac{1}{4}$ $(w+\frac{1}{2})^2=3\frac{1}{4}$ $w+\frac{1}{2}=\pm\sqrt{\frac{13}{4}}$ $w=-\frac{1}{2}\pm\frac{\sqrt{13}}{2}$ $w=\frac{-1+\sqrt{13}}{2}$ $w=\frac{-1-\sqrt{13}}{2}$	