**USUAL EQUATIONS - worksheet**

1. Solve.
a) $3x-5=2(x+3)$ b) $4x+1=\frac{2}{7}(x-14)$

c) $\frac{3}{5}x+2=\frac{2}{3}(x-1)$ d) $\frac{4\left(x+1\right)}{5}=\frac{2}{3}(x-6)$
2. Solve:
a) $x^{2}-x-6=0$ b) $12x^{2}+17x-5=0$

c) $4(x+2)^{2}-3=0$ d) $\left(x+1\right)\left(x-2\right)=3$
3. Solve algebraically (and verify with your graphing calculator – sketch what you would do to solve it graphically without technology for a) and b)).
a) $\left|x-10\right|=x^{2}-10x$ b) $\left|2x-5\right|=5-3x$

c) $\frac{-3x}{x-1}+6=\frac{6x-9}{x-1}$ d) $\frac{6}{x-3}=\frac{x+3}{x^{2}-9}-5$

e) $5+\sqrt{3x-5}=x$ f) $\sqrt{x^{2}-30x}=8$