Homework 7 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Due Friday 18 September**

1. Solve each equation
	1. $7x=21$
	2. $6x=-24$
	3. $3x+15=0$
	4. $6x+18=0$
	5. $2t-6=3-t$
	6. $2\left(3+2x\right)=3\left(x-4\right)$
2. Solve each equation by factoring
	1. $x^{2}- 9x=0$
	2. $x^{2}+ 4x=0$
	3. $x^{2}- 25=0$
	4. $2x^{2}- 5x-3=0$
	5. $2\left(2x^{2}- 4x\right)+ 3=0$
3. Solve each equation using the quadratic formula
	1. $x^{2}- 4x+2=0$
	2. $x^{2}+ 4x+2=0$
	3. $x^{2}+\frac{2}{3}x=\frac{1}{3}$
	4. $2x^{2}- 3x=1$
4. Use properties of powers of $i$ to evaluate expressions
	1. $i^{2}= $
	2. $i^{30}=$
	3. $i^{100}= $
	4. $i^{1000}= $