**Quadratics**

Complete the square then solve…

1. $x^{2}+6x+7=0$
2. $x^{2}+10x+25=0$
3. $2x^{2}+8x+5=0$
4. $2x^{2}+6x+6=5$
5. $x\left(2x+5\right)+10=3$

Factorise and solve…

1. $x^{2}+7x+12=0$
2. $3x^{2}+10x+7=0$
3. $4x^{2}-17x-15=0$
4. $100x^{2}+60x+10=1$
5. $x\left(15x-4\right)=4$

Quadratic formula to solve…

1. $x^{2}+6x-5=0$
2. $4x^{2}-12x+9=0$
3. $3x^{2}+9x+6=0$
4. $x(x-2)=2$
5. $2x^{2}-4x+5=2$

**Quadratics - Answers**

Complete the square then solve…

1. $\left(x+3\right)^{2}-2=0$, $x=-3\pm \sqrt{2}$
2. $\left(x+5\right)^{2}=0$, $x=\pm \sqrt{5}$
3. $2\left(x+2\right)^{2}-3=0$, $x=-2\pm \frac{\sqrt{3}}{2}$
4. $2\left(x+5\right)^{2}-\frac{5}{2}=0$, $x=-5\pm \frac{\sqrt{10}}{4}$
5. $2\left(x+\frac{5}{4}\right)^{2}+\frac{31}{8}=-\frac{5}{4}\pm \frac{\sqrt{62}}{8}$

Factorise and solve…

1. $\left(x+3\right)\left(x+4\right)=0$, $x=-3, x=-4$
2. $\left(3x+7\right)\left(x+1\right)=0$, $x=-1, x=-\frac{7}{3}$
3. $\left(x-5\right)\left(4x+3\right)=0$, $x=5, x=-\frac{3}{4}$
4. $\left(10x+3\right)^{2}=0$, $x=-\frac{3}{10}$
5. $\left(3x-2\right)\left(5x+2\right)=0$, $x=+\frac{2}{3}, x=-\frac{2}{5}$

Quadratic formula to solve…

1. $x=0.74, x=-6.74$
2. $x=1.5 (repeated roots)$
3. $x=-1, x=-2$
4. $x=2.73, x=-0.73$
5. $No real roots$