**Completing the Square**

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|  | Type of Question | Question |
| 1 | Even linear coefficient (easy to halve) | $$x^{2}+6x+5$$ |
| 2 | Odd linear coefficient(harder to halve, use fractions) | $$x^{2}+5x+5$$ |
| 3 | Coefficient of $x^{2}$ not 1(factorise by this first) | $$2x^{2}+12x+5$$ |
| 4 | Coefficient of $x^{2}$ not 1 and, once factorised, odd linear coefficient | $$2x^{2}+6x+5$$ |
| 5 | Coefficient of $x^{2}$ not 1 and odd linear coefficient | $$2x^{2}+5x+5$$ |

More Practice

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| Type 1 | Type 2 | Type 3 | Type 4 | Type 5 |
| $$x^{2}-4x-21$$$$x^{2}-2x-21$$$$x^{2}+22x+21$$ | $$x^{2}+5x-21$$$$x^{2}+7x-21$$$$x^{2}-7x-21$$ | $$2x^{2}-4x+6$$$$2x^{2}+12x+6$$$$3x^{2}-6x+6$$$$4x^{2}+8x+6$$ | $$2x^{2}-6x+6$$$$2x^{2}+10x-7$$$$3x^{2}-9x+6$$$$4x^{2}+4x+6$$ | $$2x^{2}-5x+6$$$$2x^{2}+11x-7$$$$3x^{2}-x-6$$$$4x^{2}+5x-5$$ |