**Set Notation**

Example 1:

Solve the following, writing your answers in set notation and then interval notation…

$$x^{2}+3x-10<0$$

|  |  |  |
| --- | --- | --- |
| Correct Answer | Set Notation | Interval Notation |
| $$-5<x<2$$ | $$\left\{x:x>-5\right\}∩\left\{x:x<2\right\}$$ | $$x\in \left(-5,2\right)$$ |

Example 2:

Solve the following, writing your answers in set notation and then interval notation…

$$x^{2}+4x-21\geq 0$$

|  |  |  |
| --- | --- | --- |
| Correct Answer | Set Notation | Interval Set Notation |
| $x\leq -7$ or $x\geq 3$ | $$\left\{x:x\leq -7\right\}∪\left\{x:x\geq 3\right\}$$ | $$x\in \left(-\infty ,-7\right]∪[3,\infty )$$ |

Now try these…

1. $3x\leq 15$
2. $x^{2}+x-2\leq 0$
3. $x^{2}-2x-3>0$
4. $(x+2)(x-1)>4$
5. $x(x-1)\leq 20$
6. $x^{2}\geq 4x-3$