**Plotting Linear Graphs – Create-a-Picture**

For each of the following equations, complete the table of values and plot the graph of the equation between the $x$-values given.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.** $y=x+5$ $\{2\leq x\leq 4\}$

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| $$x$$ | $$2$$ | $$2.5$$ | $$3$$ | $$3.5$$ | $$4$$ |
| $$y$$ |  |  |  |  |  |

 | **6.** $y=\frac{1}{4}x+\frac{9}{4}$ $\{7\leq x\leq 11\}$

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| $$x$$ | $$7$$ | $$8$$ | $$9$$ | $$10$$ | $$11$$ |
| $$y$$ |  |  |  |  |  |

 |
| **2.** $y=x-4$ $\{4\leq x\leq 6\}$

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| $$x$$ | $$4$$ | $$4.5$$ | $$5$$ | $$5.5$$ | $$6$$ |
| $$y$$ |  |  |  |  |  |

 | **7.** $y=-0.25x+5$ $\{0\leq x\leq 4\}$

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| $$x$$ | $$0$$ | $$1$$ | $$2$$ | $$3$$ | $$4$$ |
| $$y$$ |  |  |  |  |  |

 |
| **3.** $y=11-x$ $\{4\leq x\leq 7\}$

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| $$x$$ | $$4$$ | $$5$$ | $$6$$ | $$7$$ |
| $$y$$ |  |  |  |  |

 |
| Now add the following straight lines:**8**. $x=12$ $\{0\leq y\leq 7\}$**9**. $y=2$ $\{6\leq x\leq 10\}$**10**. $x=4$ $\{7\leq y\leq 9\}$**11**. $y=7$ $\{0\leq x\leq 2\}$**12**. $x=4$ $\{0\leq y\leq 4\}$**13**. $x=0$ $\{5\leq y\leq 7\}$Finally, colour in your picture! |
| **4.** $y=-x+12$ $\{10\leq x\leq 12\}$

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| $$x$$ | $$10$$ | $$10.5$$ | $$11$$ | $$11.5$$ | $$12$$ |
| $$y$$ |  |  |  |  |  |

 |
| **5.** $y=2x-17$ $\{11\leq x\leq 12\}$

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| $$x$$ | $$11$$ | $$11.25$$ | $$11.5$$ | $$11.75$$ | $$12$$ |
| $$y$$ |  |  |  |  |  |

 |

****