## Math Translation Guide

The chart below gives you some of the terms that come up in a lot of word problems. Use them in order to translate or "set-up" word problems into equations.

| English | Math | Example | Translation |
| :---: | :---: | :---: | :---: |
| What, a number | $x, n$, etc. | Three more than a number is 8. | $n+3=8$ |
| Equivalent, equals, is, was, has, costs | = | Danny is 16 years old. A CD costs 15 dollars. | $\begin{aligned} & d=16 \\ & c=15 \end{aligned}$ |
| Is greater than Is less than At least, minimum At most, maximum | $\begin{aligned} & > \\ & < \\ & \geq \\ & \leq \end{aligned}$ | Jenny has more money than Ben. Ashley's age is less than Nick's. There are at least 30 questions on the test. <br> Sam can invite a maximum of 15 people to his party. | $\begin{aligned} & j>b \\ & a<n \\ & t \geq 30 \\ & \\ & s \leq 15 \end{aligned}$ |
| More, more than, greater, than, added to, total, sum, increased by, together | + | Kecia has 2 more video games than John. <br> Kecia and John have a total of 11 video games. | $\begin{aligned} & k=j+2 \\ & k+j=11 \end{aligned}$ |
| Less than, smaller than, decreased by, difference, fewer | - | Jason has 3 fewer CDs than Carson. <br> The difference between Jenny's and Ben's savings is $\$ 75$. | $\begin{aligned} & j=c-3 \\ & j-b=75 \end{aligned}$ |
| Of, times, product of, twice, double, triple, half of, quarter of | X | Emma has twice as many books as Justin. <br> Justin has half as many books as Emma. | $e=2 \times j$ <br> or $\begin{aligned} & e=2 j \\ & j=c \times 1 / 2 \end{aligned}$ <br> or $j=e / 2$ |
| Divided by, per, for, out of, ratio of $\qquad$ to $\qquad$ | $\div$ | Sophia has $\$ 1$ for every $\$ 2$ Daniel has. <br> The ratio of Daniel's savings to Sophia's savings is 2 to 1 . | $s=d \div 2$ <br> or $s=d / 2$ $d / s=2 / 1$ |

