## Multiplication Fact Strategies

| Facts | Explanation of Strategy | Example |  |
| :---: | :---: | :---: | :---: |
| $\times 0$ | Any number multiplied by 0 is always 0. | $6 \times 0=0$ <br> 6 groups of nothing is still nothing. |  |
| x 1 | 1 times any number is that number. | $\begin{gathered} 6 \times 1=6 \\ 6 \text { groups of } 1=6 \end{gathered}$ |  |
| $\times 2$ | Double it! <br> This means add it twice. | $6 \times 2=12$ <br> 6 doubled is 12 <br> Same as: $\quad 6+6=12$ |  |
| $\times 3$ | Double. Then add 1 more group. | $\begin{aligned} & 6 \times 3 \\ & (2+1) \end{aligned}$ | $\begin{aligned} & 6 \times 2=12 \\ & 6 \times 1=\frac{6}{18} \end{aligned}$ |
| $\times 4$ | Double, Double! | $\begin{aligned} & 6 \times 4 \\ & (2+2) \end{aligned}$ | $\begin{array}{r} 6 \times 2=12 \\ 6 \times 2=\frac{12}{24} \end{array}$ |
| $\times 5$ | Count by 5's. | $6 \times 5$ | $\begin{gathered} 5,10,15,20, \\ 25,30 \\ \hline \end{gathered}$ |
| $\times 6$ | Multiply by 5. Then add 1 more group. | $\begin{aligned} & 6 \times 6 \\ & (5+1) \end{aligned}$ | $\begin{array}{r} 6 \times 5=30 \\ 6 \times 1=\frac{6}{36} \\ \hline \end{array}$ |
| $\times 7$ | Multiply by 5 . Then add 2 more groups (double). | $\begin{aligned} & 6 \times 7 \\ & \quad(5+2) \end{aligned}$ | $\begin{array}{r} 6 \times 5=30 \\ 6 \times 2=\frac{12}{42} \end{array}$ |
| x 8 | A triple-double! Double 3 times. | $6 \times 8$ | $\begin{gathered} 6 \times 2=12 \\ 12 \times 2=24 \\ 24 \times 2=48 \\ \hline \end{gathered}$ |
| $\times 9$ | Multiply by 10. Then subtract one group. The digits in each product total 9 (up to $20 \times 9$ ). | $\begin{aligned} & 6 \times 9 \\ & \quad(10-1) \end{aligned}$ | $\begin{array}{r} 6 \times 10=70 \\ -\quad \frac{6}{54} \end{array}$ |
| $\times 10$ | Count by 10s, or just add a zero to the ones place. | $6 \times 10$ | $\begin{gathered} 10,20,30,40, \\ 50,60 \end{gathered}$ |
| $\times 11$ | Multiply x 10. Then add one group. | $\begin{aligned} & 6 \times 11 \\ & \quad(10+1) \end{aligned}$ | $\begin{aligned} 6 \times 10 & =60 \\ 6 \times 1 & =\frac{6}{66} \end{aligned}$ |
| $\times 12$ | Multiply x 10. Then add 2 more groups (double). | $\begin{aligned} & 6 \times 12 \\ & (10+2) \end{aligned}$ | $\begin{aligned} & 6 \times 10=60 \\ & 6 \times 2=\frac{12}{72} \end{aligned}$ |

For facts of 3 and up, decompose one of the factors, do 2 easier multiplication problems, then add them together.

