

## Multiplication & Division Basic Facts to 10 - Fluency Assessment

In general, the standard for fact fluency in OCSD is 15 correct facts per minute when the assessment is in written form. Facts should be taught in an interrelated context which emphasizes the connections between multiplication and division. Because division facts are more difficult for students to master, and are a building block for later fraction concepts, teachers should not wait until students master multiplication facts before beginning to work on division facts.

Instructions: For the purposes of the assessment, multiplication & division have been separated. Each page should be given as a 3-minute timed test. Be sure students understand that they are NOT expected to finish the page - there are more problems than they can solve in 3 minutes. The results are interpreted as follows:

Fluency Rubric (based on 15 Facts per Minute)

|                              | Number Correct: 1 page - Multiplication OR Division | Total Number Correct: Multiplication & Division Combined |
|------------------------------|---|--|
| A (beyond the standard)      | 49 or more  | 98 or more   |
| B (at standard)              | 42-48   | 83-97  |
| C (approaching the standard) | 36-41   | 72-82  |
| D (below the standard)       | 30-35   | 60-71  |
| F (well below standard)      | 29 or less  | 59 or less   |

Note: multiple pages are included to provide more than one form of the fact fluency test.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.M.1

|                  |                  |                 |                  |                 |                 |                  |                  |
|------------------|------------------|-----------------|------------------|-----------------|-----------------|------------------|------------------|
| 8<br><u>x 4</u>  | 3<br><u>x 7</u>  | 9<br><u>x 5</u> | 6<br><u>x 6</u>  | 7<br><u>x 5</u> | 3<br><u>x 9</u> | 2<br><u>x 4</u>  | 5<br><u>x 6</u>  |
| 4<br><u>x 6</u>  | 7<br><u>x 7</u>  | 6<br><u>x 8</u> | 9<br><u>x 7</u>  | 6<br><u>x 3</u> | 8<br><u>x 5</u> | 7<br><u>x 2</u>  | 10<br><u>x 9</u> |
| 8<br><u>x 3</u>  | 7<br><u>x 10</u> | 6<br><u>x 9</u> | 2<br><u>x 7</u>  | 4<br><u>x 9</u> | 5<br><u>x 5</u> | 6<br><u>x 10</u> | 7<br><u>x 1</u>  |
| 10<br><u>x 4</u> | 9<br><u>x 6</u>  | 3<br><u>x 4</u> | 6<br><u>x 7</u>  | 3<br><u>x 6</u> | 7<br><u>x 9</u> | 4<br><u>x 4</u>  | 2<br><u>x 3</u>  |
| 8<br><u>x 9</u>  | 4<br><u>x 7</u>  | 2<br><u>x 5</u> | 5<br><u>x 10</u> | 9<br><u>x 4</u> | 5<br><u>x 7</u> | 3<br><u>x 10</u> | 4<br><u>x 5</u>  |
| 6<br><u>x 4</u>  | 5<br><u>x 3</u>  | 8<br><u>x 7</u> | 10<br><u>x 8</u> | 3<br><u>x 8</u> | 9<br><u>x 9</u> | 5<br><u>x 4</u>  | 8<br><u>x 2</u>  |
| 9<br><u>x 8</u>  | 4<br><u>x 10</u> | 6<br><u>x 5</u> | 7<br><u>x 4</u>  | 9<br><u>x 3</u> | 3<br><u>x 5</u> | 8<br><u>x 1</u>  | 2<br><u>x 7</u>  |
| 6<br><u>x 1</u>  | 2<br><u>x 6</u>  | 5<br><u>x 9</u> | 8<br><u>x 8</u>  | 3<br><u>x 1</u> | 7<br><u>x 8</u> | 9<br><u>x 2</u>  | 3<br><u>x 3</u>  |

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.M.2

|                  |                  |                 |                  |                 |                 |                  |                  |
|------------------|------------------|-----------------|------------------|-----------------|-----------------|------------------|------------------|
| 5<br><u>x 6</u>  | 2<br><u>x 6</u>  | 5<br><u>x 9</u> | 8<br><u>x 8</u>  | 3<br><u>x 4</u> | 7<br><u>x 8</u> | 9<br><u>x 2</u>  | 6<br><u>x 6</u>  |
| 10<br><u>x 9</u> | 7<br><u>x 7</u>  | 6<br><u>x 8</u> | 9<br><u>x 1</u>  | 6<br><u>x 3</u> | 8<br><u>x 5</u> | 7<br><u>x 2</u>  | 5<br><u>x 7</u>  |
| 7<br><u>x 3</u>  | 7<br><u>x 10</u> | 6<br><u>x 9</u> | 2<br><u>x 7</u>  | 4<br><u>x 9</u> | 5<br><u>x 5</u> | 6<br><u>x 10</u> | 3<br><u>x 7</u>  |
| 2<br><u>x 5</u>  | 9<br><u>x 6</u>  | 3<br><u>x 5</u> | 6<br><u>x 7</u>  | 3<br><u>x 6</u> | 7<br><u>x 9</u> | 4<br><u>x 8</u>  | 8<br><u>x 2</u>  |
| 4<br><u>x 5</u>  | 4<br><u>x 7</u>  | 2<br><u>x 3</u> | 5<br><u>x 10</u> | 9<br><u>x 4</u> | 9<br><u>x 7</u> | 3<br><u>x 10</u> | 6<br><u>x 4</u>  |
| 8<br><u>x 2</u>  | 5<br><u>x 3</u>  | 8<br><u>x 7</u> | 10<br><u>x 1</u> | 3<br><u>x 8</u> | 9<br><u>x 6</u> | 5<br><u>x 4</u>  | 10<br><u>x 8</u> |
| 2<br><u>x 7</u>  | 4<br><u>x 10</u> | 6<br><u>x 5</u> | 7<br><u>x 4</u>  | 9<br><u>x 3</u> | 6<br><u>x 2</u> | 3<br><u>x 3</u>  | 8<br><u>x 9</u>  |
| 9<br><u>x 8</u>  | 4<br><u>x 10</u> | 4<br><u>x 2</u> | 10<br><u>x 6</u> | 3<br><u>x 8</u> | 3<br><u>x 9</u> | 8<br><u>x 1</u>  | 5<br><u>x 8</u>  |

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.D.1

|               |               |               |               |                |                |               |
|---------------|---------------|---------------|---------------|----------------|----------------|---------------|
| $27 \div 9 =$ | $80 \div 8 =$ | $14 \div 7 =$ | $12 \div 2 =$ | $12 \div 4 =$  | $18 \div 3 =$  | $14 \div 2 =$ |
| $10 \div 2 =$ | $45 \div 9 =$ | $48 \div 8 =$ | $63 \div 7 =$ | $40 \div 5 =$  | $36 \div 9 =$  | $24 \div 8 =$ |
| $18 \div 9 =$ | $72 \div 8 =$ | $56 \div 7 =$ | $18 \div 6 =$ | $21 \div 3 =$  | $60 \div 10 =$ | $16 \div 4 =$ |
| $45 \div 5 =$ | $54 \div 9 =$ | $10 \div 2 =$ | $42 \div 7 =$ | $63 \div 9 =$  | $15 \div 5 =$  | $36 \div 6 =$ |
| $21 \div 7 =$ | $16 \div 4 =$ | $54 \div 6 =$ | $81 \div 9 =$ | $80 \div 10 =$ | $72 \div 9 =$  | $24 \div 6 =$ |
| $70 \div 7 =$ | $48 \div 6 =$ | $28 \div 4 =$ | $30 \div 5 =$ | $15 \div 3 =$  | $54 \div 9 =$  | $49 \div 7 =$ |
| $12 \div 3 =$ | $12 \div 6 =$ | $40 \div 4 =$ | $64 \div 8 =$ | $50 \div 10 =$ | $24 \div 3 =$  | $42 \div 6 =$ |
| $12 \div 6 =$ | $32 \div 8 =$ | $50 \div 5 =$ | $6 \div 2 =$  | $8 \div 4 =$   | $49 \div 7 =$  | $40 \div 4 =$ |

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.D.2

|                |               |               |               |               |               |                |
|----------------|---------------|---------------|---------------|---------------|---------------|----------------|
| $90 \div 10 =$ | $14 \div 2 =$ | $12 \div 6 =$ | $35 \div 5 =$ | $32 \div 4 =$ | $18 \div 2 =$ | $12 \div 2 =$  |
| $20 \div 10 =$ | $48 \div 6 =$ | $63 \div 9 =$ | $54 \div 6 =$ | $40 \div 8 =$ | $90 \div 9 =$ | $45 \div 9 =$  |
| $16 \div 2 =$  | $72 \div 9 =$ | $18 \div 3 =$ | $36 \div 4 =$ | $21 \div 7 =$ | $30 \div 5 =$ | $18 \div 6 =$  |
| $45 \div 9 =$  | $14 \div 7 =$ | $42 \div 6 =$ | $12 \div 2 =$ | $63 \div 7 =$ | $6 \div 3 =$  | $49 \div 7 =$  |
| $72 \div 8 =$  | $21 \div 3 =$ | $56 \div 8 =$ | $24 \div 6 =$ | $35 \div 7 =$ | $20 \div 5 =$ | $32 \div 8 =$  |
| $56 \div 7 =$  | $54 \div 6 =$ | $81 \div 9 =$ | $30 \div 6 =$ | $80 \div 8 =$ | $25 \div 5 =$ | $30 \div 5 =$  |
| $70 \div 10 =$ | $42 \div 7 =$ | $30 \div 5 =$ | $32 \div 8 =$ | $15 \div 3 =$ | $64 \div 8 =$ | $50 \div 10 =$ |
| $12 \div 4 =$  | $40 \div 4 =$ | $16 \div 8 =$ | $28 \div 4 =$ | $15 \div 5 =$ | $36 \div 6 =$ | $6 \div 2 =$   |