| Content Standard   |              | MAFS.4.NBT Number and Operations in Base Ten   |                              |                                    |  |  |  |
|--|--------------|--|------------------------------|------------------------------------|--|--|--|
|  |              | <b>MAFS.4.NBT.2</b> Use place value understanding and properties of operations to perform multi-digit arithmetic.    |                              |                                    |  |  |  |
|  |              | MAFS.4.NBT.2.5 Multiply a whole number of up to four digits by a one-digit whole                                     |                              |                                    |  |  |  |
|  |              | number, and multiply two two-digit numbers, using strategies based on place value                                    |                              |                                    |  |  |  |
|  |              | and the properties of operations. Illustrate and explain the calculation by using                                    |                              |                                    |  |  |  |
|  |              | equations, rectangular arrays, and/or area models.   |                              |                                    |  |  |  |
| Assessment Limits  |              | Multiply four digits by one digit, three digits by one digit, two digits by one digit, and two digits by two digits. |                              |                                    |  |  |  |
| Calculator   |              | No   |                              |                                    |  |  |  |
| Acceptable   |              | Equation Response  |                              |                                    |  |  |  |
| Response   |              | Multi-Select Response  |                              |                                    |  |  |  |
| Mechanisms   |              | Natural Language Response  |                              |                                    |  |  |  |
| Context  | No c         | ontext   |                              |                                    |  |  |  |
| Example  |              |  |                              |                                    |  |  |  |
| Context Restrict multiplication to 3 or 4 di<br>Include additional carrying. |              |  | ligits by 1 digit.           |                                    |  |  |  |
| Context Restrict multiplication to 2 or 3 digits by 1 digit                  |              |  |                              |                                    |  |  |  |
| easier   | Use small    | digits that do not require additional carrying in problem solving.   |                              |                                    |  |  |  |
| Context Include multiplication of two<br>more<br>difficult                   |              |  | it by two digit numbers, wit | th or without additional carrying. |  |  |  |
| Sample Item Stem   |              |  | Response Mechanism           | Notes, Comments                    |  |  |  |
| Find the product of 220 and 4.   |              |  | Equation Response            |                                    |  |  |  |
| Find the product of 2,830 and 3.   |              |  | Equation Response            |                                    |  |  |  |
| Select all the expressions that have a                                       |              |  | Multi-Select                 |                                    |  |  |  |
| product of 420.  |              |  | Response                     |                                    |  |  |  |
| o 3  | 5 x 12       |  |                              |                                    |  |  |  |
| o (  | 3 x 5) x (10 | x 2)   |                              |                                    |  |  |  |
| o (40 x 10) x (2 x 4)  |              |  |                              |                                    |  |  |  |
| o 40 x 20  |              |  |                              |                                    |  |  |  |
| o 1  | .4 x 30      |  |                              |                                    |  |  |  |
|  |              |  |                              |                                    |  |  |  |

| Content Standard                          |            | MAFS.4.NBT Number and Operations in Base Ten  |                                     |                 |  |  |
|---|------------|---|-------------------------------------|-----------------|--|--|
|   |            | <b>MAFS.4.NBT.2</b> Use place value understanding and properties of operations to perform multi-digit arithmetic.   |                                     |                 |  |  |
|   |            | <b>MAFS.4.NBT.2.6</b> Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. |                                     |                 |  |  |
| Assessment Limits                         |            | 3-digit dividend and 1-digit divisor, and 4-digit dividend and 1-digit divisor.   |                                     |                 |  |  |
| Calculator                                |            | No  |                                     |                 |  |  |
| Acceptable                                |            | Equation Response   |                                     |                 |  |  |
| Response                                  |            | Multi-Select Response   |                                     |                 |  |  |
| Mechanisms                                |            |   |                                     |                 |  |  |
| Context No context                        |            |   |                                     |                 |  |  |
| Example                                   |            |   |                                     |                 |  |  |
| Context Include division by non-skip cour |            |   | unting numbers without a remainder. |                 |  |  |
| Context                                   | Divisor in | cludes common skin  | counting numbers (multiples         | of 2 and 5)     |  |  |
| easier                                    | Include di | ivision by skin counti  | ng numbers without a remain         | of 2 and 5).    |  |  |
| Context                                   | Include 4  | -digit dividends.   |                                     |                 |  |  |
| more                                      | Include d  | ivision by non-skip co  | ounting numbers with a rema         | inder.          |  |  |
| difficult                                 |            | , ,   | 0                                   |                 |  |  |
| Sample Item Stem                          |            |   | Response Mechanism                  | Notes, Comments |  |  |
| What is 400 divided by                    |            | by 5?   | Equation Response                   |                 |  |  |
|   |            |   |                                     |                 |  |  |
| Select all the expressions that have a    |            |   | Multi-Select Response               |                 |  |  |
| value of 25.                              |            |   |                                     |                 |  |  |
|   |            |   |                                     |                 |  |  |
| ○ 500÷5                                   |            |   |                                     |                 |  |  |
| ○ 600÷3                                   |            |   |                                     |                 |  |  |
| o 100÷4                                   |            |   |                                     |                 |  |  |
| o 150÷5                                   |            |   |                                     |                 |  |  |
| 0   | 200 ÷ 8    |   |                                     |                 |  |  |
| What is 402 divided by 8?                 |            |   | Equation Response                   |                 |  |  |
| What is 1,356 divided by 3?               |            |   | Equation Response                   |                 |  |  |