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| **Multiplying and Dividing Decimals by 2-Digit Numbers** | | | | |
| Models multiplication and division situations concretely and pictorially.  1.6 × 3 = ?    “I used Base Ten Blocks to make an array  with length 3 and width 1.6.  I then counted the blocks to get 4.8.  I could also use repeated addition:.  1.6 + 1.6 + 1.6 = 4.8” | Uses models and other strategies to solve multiplication and division situations.  4.15 × 25 = ?  4.15 × 25 = (4.0 + 0.10 + 0.05) × (20 + 5)                 = (4.0 × 20) + (0.10 × 20) + (0.05 × 20)  + (4.0 × 5) + (0.10 × 5) + (0.05 × 5)                 = 80.0 + 2.0 + 1.0 + 20 + 0.5 + 0.25                 = 103.75 | | | Uses the standard algorithm to multiply.  4.15 × 25 = ?  “First, I multiplied as if there was no decimal.  Next, I counted the number of digits  after the decimal point in each factor.  Then I placed the same number of digits  after the decimal point in the product.”  A multiplying numbers on a white background  Description automatically generated |
| **Observations/Documentation** | | | | |
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| **Multiplying and Dividing Decimals by 2-Digit Numbers (cont’d)** | | | |
| Decomposes numbers to use partial quotients  to divide.  4.44 ÷ 12 = ?  A number of groups in a row  Description automatically generated with medium confidence  “I used partial quotients to divide  as whole numbers, then estimated  to place the decimal point.  4.44 is about 4 and 12 is about 10.  So, 4 ÷ 10 = 0.40  So, I placed the decimal point so 37  is close to 0.40: 0.37.” | Estimates to determine if answer to multiplication or division problem is reasonable.  A number with numbers in a row  Description automatically generated with medium confidence  “$4.44 is about $4 and 12 is about 10.  So, $4 ÷ 10 = $0.40  So, the answer is reasonable.” | | Solves multiplication and division problems flexibly using a variety of strategies.  The area of a rectangular garden plot is 95.2 m2. The length of the garden is 14 m.  What is the width?  “I divided as I would whole numbers, then used estimation to place the decimal point.  **A number with numbers on it  Description automatically generated with medium confidence**  95.2 is about 100, and 14 is about 10.   100 ÷ 10 = 10.  I placed the decimal point  so that 68 is close to 10: 6.8.  The width of the garden is 6.8 m.” |
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| **Addition and Subtraction of Fractions with Unlike Denominators** | | | |
| Concretely solves problems.  + = ?    “I used fraction strips. I can see that = and that + = , or 1.” | Models pictorially to solve problems.  – = ?    “I used a double number line.  I modelled on the top line and  on the bottom line, then found the difference. From the double number lines, I see the difference is .” | Uses equivalent fractions to symbolically solve problems.  + + = ?  “I wrote equivalent fractions  with a common denominator of 6.  = and =  + + = + +  = , or 1 whole.” | Fluently and flexibly solves problems.  3 − 2 = ?  “I wrote 2 as an improper fraction, . Then I subtracted − using a common denominator of 8.”  − = −  = |
| **Observations/Documentation** | | | |
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