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| **Mental Math with Powers of 10** | | | |
| Expresses and uses powers of 10  in a variety of forms  “1000 is the same as 10 × 10 × 10 and can also be written as 103.  is the same as and  can also be written as 10–3.” | Uses mental math to multiply or divide by powers of 10  “3.56 × 103 = 3.56 × 1000  = 3560  3.56 ÷ 103 = 3.56 ÷ 1000  = 0.003 56” | Relates multiplication by a negative power and division by a positive power and vice versa  “10–3 is .  So, I think that multiplying by 10–3  will be the same as dividing by 103. This means that  3.56 × 10–3 = 0.003 56.  I checked with my calculator,  and I am correct.” | Solves problems involving multiplying or dividing by powers  of 10  “8.4 🞏 102 = 0.084 This is the same as  8.4 🞏 100 = 0.084.  The answer is smaller than 8.4.  If I multiplied 8.4 by 100, the answer would be greater.  So, I will use division. I’ll check: 8.4 ÷ 100 = 0.084, which is the answer I want.” |
| **Observations/Documentation** | | | |
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