| **Topic 4** | **Lesson 4-1** | Inverse Variation and the Reciprocal Function  Pacing: 2 Days / Block: 1 Day | | |
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| LESSON OBJECTIVE(S) | | Essential Understanding |
| Students will be able to:  Use inverse variation to write and graph reciprocal functions.  Identify the effect of transformations on the graph of the parent reciprocal function and define the effects  of *h* and *k* on the function *f*(*x*) = + *k*. | | A reciprocal function is used to model inverse variation, which is a proportional relationship between two variables such that when one variable increases, the other decreases. |
| NEW Vocabulary | | |
| * Asymptote * Constant of variation * Inverse variation * Reciprocal function | | |
| STANDARDS | | |
| **Common Core State Standards for Mathematics** | | |
| **Content Standards**  HSA.CED.A.1, HSA.CED.A.2, HSF.IF.C.7.D (+), HSF.BF.B.3, | **Standards for Mathematical Practice**  MP.1, MP.2, MP.4 | |

Teaching the Lesson

| STEP 1: explORE | |
| --- | --- |
| **Model & Discuss** | Student Edition & Student Companion  SavvasRealize.com |
| STEP 2: UNDERSTAND & APPLY | |
| **Example 1:** Identify Inverse Variation | Student Edition & Student Companion  SavvasRealize.com |
| **Example 2:** Use Inverse Variation | Student Edition & Student Companion  SavvasRealize.com |
| **Example 3:** Use an Inverse Variation Model  Support for English Language Learners | Student Edition & Student Companion  SavvasRealize.com |
| **Example 4:** Graph the Reciprocal Function  Support for Struggling Students | Student Edition & Student Companion  SavvasRealize.com |
| **Example 5:** Graph Translations of the Reciprocal Function  Support to Extend Student Thinking | Student Edition & Student Companion  SavvasRealize.com |
| **Concept Summary**  Do You UNDERSTAND? and Do You KNOW HOW? | Student Edition & Student Companion  SavvasRealize.com |
| STEP 3: PRACTICE AND PROBLEM SOLVING | |
| **Practice and Problem Solving** | Student Edition  SavvasRealize.com |
| STEP 4: Assess & Differentiate | |
| **Lesson Quiz** | SavvasRealize.com  Teacher Resources Download |
| **Differentiated Resources Library**   * Reteach to Build Understanding * Mathematical Literacy and Vocabulary * Additional Practice * Enrichment * Video Tutorials | SavvasRealize.com  Teacher Resources Download |