

MathFLIX CHALLENGE

Problem Solving Strategy: Draw a Diagram

| Problem | Diagram | Leading Questions | Answers |
|--|---------|---|--|
| <p>Marcus has three cousins named Omar, Adrian and Rebecca. Omar is 3 years older than Marcus. Adrian is 7 years younger Omar. Rebecca is the oldest of the four.</p> | | <p>a) Is Marcus older than Rebecca?</p> <p>b) Put Marcus and his cousins in order from oldest to youngest.</p> <p>c) Marcus is how many years older than Adrian ?</p> | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> |
| <p>At Forest Preserve Mountain you can rent sleds. Each sled can carry 2 adults at a time, or 4 children at a time. The sled operator only starts sleds when they are full, and the operator never puts adults and children on the same sled.</p> | | <p>Does the operator ever start a sled with three children?</p> <p>How many adults can ride on 5 sleds?</p> <p>In one race on Sunday morning, 8 sleds carried 24 people. How many of the sleds were carrying adults? Children?</p> | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> |
| <p>As a service learning project, students designed a game that uses two spinners. One spinner is divided evenly into sections that are numbered 1,2,3 and 4. The second spinner is divided evenly and the sections are numbered 1 and 2. The game board has 5 squares numbered 2,3,4,5, and 6 and a colored game piece is used by each player. To play, a player puts a game piece on a number. The player spins both spinners and adds the total of both spinners. If the sum matches the number on the square where the player's game piece is - the player wins.</p> | | <p>Should the students have put a 1 on the game board?</p> <p>Rafael chose the number 2 on the game board. How many ways can he win?</p> <p>Lana chose the number 5 on the game board. How many ways can she win?</p> <p>Which numbers give you a better chance of winning?</p> | <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> |