

Name \_\_\_\_\_



Date \_\_\_\_\_

## Inequalities

Complete.

<p>1. David and Steven are playing a new game. The game uses some special cards and a complex scoring system. The exact scoring system is not important for the purposes of this question. David has cards worth 3, 6, 3, 5, and 3 points respectively. Steven has the same number of cards, but his cards add up to six points more than David's cards. If Steven has cards worth 2, 8, 2, and 11 points, what must his other card be worth?</p>	<p>2. Computer sales at Big Company are down this year. In fact their net profit so far is -2,350,000 dollars (in other words it is a loss, not a profit). Things are looking better for the company. In fact, Big Company just started making a profit of \$258,000 per month. If the company can keep up this rate of monthly profit, how many months will it take to erase the loss plus show a net profit of at least \$358,000?</p>
<p>3. Mr. Lewis is growing melons on his high desert farm. He knows from experience that the melons will ripen well if they get no less than seventeen inches of rain during the growing season. This year it has rained eleven times. The amount of rain (in inches) that fell each time was: 0.9, 1.2, 0.7, 0.4, 1.4, 0.7, 2.5, 0.7, 1.2, 1.8, and 2.9. Is this enough rain to allow his melon crop to be successful?</p>	<p>4. It is <math>13^{\circ}\text{C}</math> outside. How many whole degrees can the temperature rise and still be less than <math>28^{\circ}\text{C}</math>?</p>
<p>5. You have a pie. The pie is divided into six equal pieces. Each piece is thirteen cubic cm in volume. Your brother eats two pieces. Each of the remaining pieces is divided in half again. Is the remaining volume of pie greater, less than, or equal to half of the original volume?</p>	<p>6. Which expression has the largest value (a) <math>-33 + (42) \div -8</math>, or (b) <math>33 \div (-8) - -42</math>?</p>

