Name _____ Date _____ Class _____

Solving Two-Step Inequalities

Practice and Problem Solving: A/B

Fill in the blanks to show the steps in solving the inequality.

1. $3x - 5 < 19$

   $3x - 5 + \underline{\quad} < 19 + \underline{\quad}$

   $3x < \underline{\qquad\qquad}$

   $3x \div \underline{\quad} < \underline{\quad} \div \underline{\quad}$

   $x < \underline{\qquad\qquad}$

2. $-2x + 12 < -4$

   $-2x + 12 - \underline{\quad} < -4 - \underline{\quad}$

   $-2x < \underline{\qquad\qquad}$

   $-2x \div \underline{\quad} > \underline{\quad} \div \underline{\quad}$

   $x > \underline{\qquad\qquad}$

3. Why do the inequality signs stay the same in the last two steps of Exercise 1?

   _____

4. Why is the inequality sign reversed in the last two steps of Exercise 2?

   _____

Solve the inequalities. Show your work.

5. $-7d + 8 > 29$

6. $12 - 3b < 9$

7. $\dfrac{z}{7} - 6 \geq -5$

   _____   _____   _____

   _____   _____   _____

   _____   _____   _____

8. Fifty students are trying to raise at least $12,500 for a class trip. They have already raised $1,250. How much should each student raise, on average, in order to meet the goal? Write and solve the two-step inequality for this problem.

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9. At the end of the day, vegetables at Farm Market sell for $2.00 a pound, and a basket costs $3.50. If Charlene wants to buy a basket and spend no more than $10.00 total, how many pounds of vegetables can she buy? Write and solve the inequality.

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