

Math 7 Period _____

Name _____

7.6 Expressions, Equations, and Inequalities End of Unit Review

Date _____

Place of Power

Please **read carefully**. Answer the questions and **reread the problems carefully** to be sure that you have followed the directions. You may use a calculator.

Show your work and explain your answers!

1. Alyssa has \$150 to spend on a \$128 ticket for a hockey game. She also wants to buy some snacks which cost \$2.95 each. Which **one** of these inequalities describes this situation, where n is the number of snacks Alyssa wants to buy?

a. $128 + 2.95n \geq 150$

b. $128 + 2.95n \leq 150$

c. $128 + 2.95n < 150$

d. $128 + 2.95n > 150$

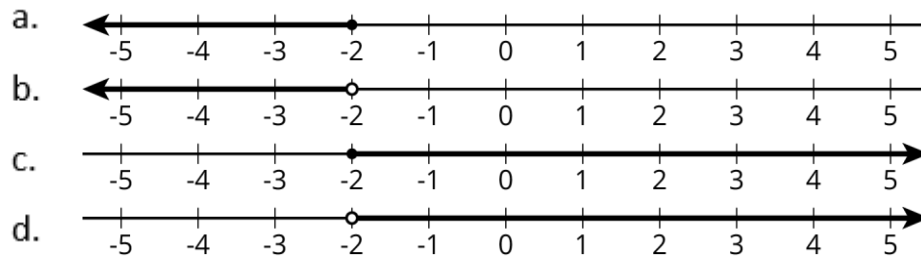
2.

A. **Simplify** the expression $6 - 2x + 5 + 4x$.

B. **Distribute** to write an equivalent expression: $3(-8x + 12y)$

C. **Factor** to write an equivalent expression: $26a - 10$

3. Which number line shows all the values of x that make the inequality $-3x + 1 \geq 7$ true? **Pick one.**



4. Solve each equation using properties of equality.

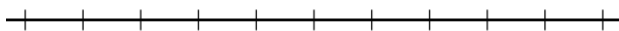
A. $8 = 4(x + 7)$

B. $5y - 23 = -13$

Owen is making paper cranes to decorate for a party. He plans to make one large paper crane for a centerpiece and several smaller paper cranes to put around the table. It takes Andre 10 minutes to make the centerpiece and 3 minutes to make each small crane. He will only have 30 minutes to make the paper cranes once he gets home. Owen wrote the equation $3x + 10 = 30$ to plan his time.

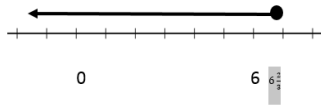
A. **Write and solve an inequality** that represents that Owen only has 30 minutes to make his paper cranes.

B. **Graph** your inequality on a number line.



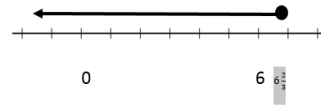
Sample Answers:

1. b
2. A. $2x + 11$
B. $-24x + 36y$
C. $2(13a - 5)$
3. a
4. A. $x = -5$ B. $y = 2$
5. A. $3x + 10 \leq 30$. $x \leq 6\frac{2}{3}$ B.



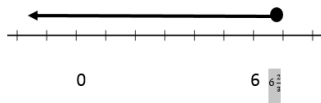
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