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Unit 6, Lesson 19**Practice Problems**

- Expand to write an equivalent expression: $\frac{-1}{4}(-8x + 12y)$
 - Factor to write an equivalent expression: $36a - 16$

- Lin missed math class on the day they worked on expanding and factoring. Kiran is helping Lin catch up.
 - Lin understands that expanding is using the distributive property, but she doesn't understand what factoring is or why it works. How can Kiran explain factoring to Lin?

 - Lin asks Kiran how the diagrams with boxes help with factoring. What should Kiran tell Lin about the boxes?

 - Lin asks Kiran to help her factor the expression $-4xy - 12xz + 20xw$. How can Kiran use this example to Lin understand factoring?

- Complete the equation with numbers that makes the expression on the right side of the equal sign equivalent to the expression on the left side.

$$75a + 25b = \underline{\quad}(\underline{\quad}a + b)$$

- Elena makes her favorite shade of purple paint by mixing 3 cups of blue paint, $1\frac{1}{2}$ cups of red paint, and $\frac{1}{2}$ of a cup of white paint. Elena has $\frac{2}{3}$ of a cup of white paint.
 - Assuming she has enough red paint and blue paint, how much purple paint can Elena make?



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b. How much blue paint and red paint will Elena need to use with the $\frac{2}{3}$ of a cup of white paint?

5. Solve each equation.

a. $\frac{-1}{8}d - 4 = \frac{-3}{8}$

b. $\frac{-1}{4}m + 5 = 16$

c. $10b + -45 = -43$

d. $-8(y - 1.25) = 4$

e. $3.2(s + 10) = 32$

6. Select **all** the inequalities that have the same solutions as $-4x < 20$.

A. $-x < 5$

B. $4x > -20$

C. $4x < -20$

D. $x < -5$

E. $x > 5$

F. $x > -5$