

## Lesson 8 Practice Problems

1.
  - a. Expand to write an equivalent expression:  $\frac{-1}{4}(-8x + 12y)$
  
  - b. Factor to write an equivalent expression:  $36a - 16$
  
2. Lin missed math class on the day they worked on expanding and factoring. Kiran is helping Lin catch up.
  - a. 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?
  
  - b. Lin asks Kiran how the diagrams with boxes help with factoring. What should Kiran tell Lin about the boxes?
  
  - c. Lin asks Kiran to help her factor the expression  $-4xy - 12xz + 20xw$ . How can Kiran use this example to Lin understand factoring?

3. 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.

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

4. 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.  $3.2(s + 10) = 32$

(From Unit 3, Lesson 9.)

5. For each inequality, decide whether the solution is represented by  $x < 4.5$  or  $x > 4.5$ .

a.  $-24 > -6(x - 0.5)$

b.  $-8x + 6 > -30$

c.  $-2(x + 3.2) < -15.4$

(From Unit 4, Lesson 5.)