## Unit 6 Lesson 22: Combining Like Terms (Part 3)

### 1 Are They Equal? (Warm up)

#### Student Task Statement

Select **all**expressions that are equal to $8−12−\left(6+4\right)$.

1. $8−6−12+4$
2. $8−12−6−4$
3. $8−12+\left(6+4\right)$
4. $8−12−6+4$
5. $8−4−12−6$

### 2 X’s and Y’s

#### Student Task Statement

Match each expression in column A with an equivalent expression from column B. Be prepared to explain your reasoning.

**A**

1. $\left(9x+5y\right)+\left(3x+7y\right)$
2. $\left(9x+5y\right)−\left(3x+7y\right)$
3. $\left(9x+5y\right)−\left(3x−7y\right)$
4. $9x−7y+3x+5y$
5. $9x−7y+3x−5y$
6. $9x−7y−3x−5y$

**B**

1. $12\left(x+y\right)$
2. $12\left(x−y\right)$
3. $6\left(x−2y\right)$
4. $9x+5y+3x−7y$
5. $9x+5y−3x+7y$
6. $9x−3x+5y−7y$

### 3 Seeing Structure and Factoring

#### Student Task Statement

Write each expression with fewer terms. Show or explain your reasoning.

1. $3⋅15+4⋅15−5⋅15$
2. $3x+4x−5x$
3. $3\left(x−2\right)+4\left(x−2\right)−5\left(x−2\right)$
4. $3\left(\frac{5}{2}x+6\frac{1}{2}\right)+4\left(\frac{5}{2}x+6\frac{1}{2}\right)−5\left(\frac{5}{2}x+6\frac{1}{2}\right)$



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