## Unit 4 Lesson 8: Expanding and Factoring

### 1 Number Talk: Parentheses (Warm up)

#### Student Task Statement

Find the value of each expression mentally.

$2+3⋅4$

$(2+3)(4)$

$2−3⋅4$

$2−(3+4)$

### 2 Factoring and Expanding with Negative Numbers

#### Student Task Statement

In each row, write the equivalent expression. If you get stuck, use a diagram to organize your work. The first row is provided as an example. Diagrams are provided for the first three rows.



|  |  |
| --- | --- |
| factored | expanded |
| $-3(5−2y)$ | $-15+6y$ |
| $5(a−6)$ |  |
|  | $6a−2b$ |
| $-4(2w−5z)$ |  |
| $-(2x−3y)$ |  |
|  | $20x−10y+15z$ |
| $k(4−17)$ |  |
|  | $10a−13a$ |
| $-2x(3y−z)$ |  |
|  | $ab−bc−3bd$ |
| $-x(3y−z+4w)$ |  |



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