

Variable Expressions Flip Book Warm-up

Increasing Accessibility to Algebra and Geometry for ALL Students (2009)

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Teacher Planning:

Create sets of cards for students to use as mini flip books for practice working with variables and expressions. Use the same set of cards for a week, changing the values of the variables on the cards to give students repeated practice.

Depending on the class and time of the year, use all positive numbers or a mix of positive and negative integers.

Two sets of cards are given to help teachers get started.

The first set focuses on adding and subtracting integers using a , b , and c . (To try it out, use $a = 4$, $b = -2$, $c = -1$.)

The second set focuses on multiplication and exponentiation using d , e , f . (To try it out, use $d = 5$, $e = -3$, $f = 1$.)

Variable Expressions Flip Book Warm-up

Cut out the 12 cards and assemble them to form a mini-book.

Use the given values of **a**, **b**, and **c** to evaluate each expression.

1. $a + b$	2. $a - b$	3. $b + c$
4. $3a + 4c$	5. $2b + 2c$	6. $a - (b + c)$
7. $-abc$	8. $4a - c$	9. $ab - 2$
10. $b - a + c$	11. $\frac{(3a + b)}{5}$	12. $(a+2)(b+2)$

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Cut out the 12 cards and assemble them to form a mini-book.

Use the given values of **d**, **e**, and **f** to evaluate each expression.

1. de	2. f^2	3. ef^3
4. $5e^2$	5. $-df$	6. $(ef)^2$
7. ef^2	8. $(-d)f$	9. $-(f^2)$
10. $-f^2$	11. $(-f)^2$	12. $(d+e+f)^3$