## Who Has...?

The student will represent verbal quantitative situations algebraically and evaluate these expressions for given replacement values of the variables.

MATERIALS: deck of Who Has...? cards
Groups: small group to whole class
Game:
Pass out the entire deck to students. Any student may begin by reading his or her card aloud. The student with the answer responds by reading his/her card. Play continues until all cards are used. Timed class competition is an option.

Who Has...? cards

| I have $5+\mathbf{2 x}$. | I have 10x. |
| :---: | :---: |
| Who has a number 3 less than my number? | Who has my number decreased by 9x? |
| I have $2+2 \mathrm{x}$. | I have x . |
| Who has a number twice as large as my number? | Who has the square of my number? |
| I have 4x+4. | I have $\mathbf{x}^{\mathbf{2}}$. |
| Who has a number 4 less than my number? | Who has the perimeter of an equilateral triangle of side 2 x ? |


| I have 4x. <br> Who has the square of my number? | I have 6x. <br> Who has 6 more than my number? |
| :---: | :---: |
| I have $16 x^{2}$. <br> Who has my number increased by $9 \mathrm{x}^{2}$ ? | I have $\mathbf{6 x}+6$. <br> Who has $\frac{1}{6}$ of my number? |
| I have $25 \mathrm{x}^{2}$. <br> Who has the square root of my number? | I have $\mathbf{x}+1$. <br> Who has the square of my number? |
| I have 5x. <br> Who has twice my number? | I have $9 \mathbf{x}^{\mathbf{2}}$. <br> Who has a square root of my number? |
| I have $x^{2}+2 x+1$. <br> Who has twice Mary's age three years ago if she is $x$ years old now? | I have 3x. <br> If my number is the length of the side of a square, who has its perimeter? |
| I have 2x-6. <br> Who has 6 more than my number? | I have 12x. <br> Who has my value if $x=\frac{1}{4}$ ? |


| I have 2x. | I have 3. |
| :---: | :---: |
| Who has the square of my number? | Who has 3x minus my number? |
|  | I have 3x-3. |
| Who has my number decreased by 1? | If I am the perimeter of an equilateral triangle, who has the length of each side? |
| I have $4 \mathbf{x}^{\mathbf{2}} \mathbf{- 1}$. | I have $\mathrm{x}-1$. |
| Who has a factor of my number? | If my number is squared, who has my middle term? |
| I have $\mathbf{2 x}+\mathbf{1}$. | I have 25. |
| Who has my number if $x=4$ ? | Who has a number that is $4 x^{2}$ less than my number? |
| I have 9. | I have $25-4 \mathrm{x}^{2}$. |
| Who has the product of my number and the square of $x$ ? | Who has a factor of my number? |
| I have - $\mathbf{2 x}$. | I have 36. |
| If $x=3$, who has the square of my number? | Who has the largest perfect square less than my number? |

