Names (group) _____ Date _____

Algebraic Expressions: Practice and Check

PART 1 Group game: Find the pair

1. Cut out the 24 cards and put them face down.
2. Players take turns to turn over two cards. If the expressions are equal, the player keeps the pair and explains why.
3. If it is not a pair, the cards go back. The player with the most pairs wins.

$(x+3)^2$	$(a-2)(a^2+2a+4)$	$2x+3x$	$\frac{3}{2}$
x^2-4	x^2+5x+6	$x-1$	x^3+1
$a^3+3a^2b+3ab^2+b^3$	$(x+y+1)^2$	$\frac{3}{2x}$	x^2+6x+9
$3x+6$	$5x$	$(x+1)(x^2-x+1)$	$(x-2)(x+2)$
$3(x+2)$	$\frac{x^2-1}{x+1}$	$(a+b)^3$	$(x+2)(x+3)$
$\frac{1}{x}+\frac{1}{2x}$	a^3-8	$x^2+y^2+1+2xy+2x+2y$	$\frac{2x}{3}\times\frac{9}{4x}$

Name _____ Date _____

PART 2 Check

1 ON YOUR OWN Use the formula.

$(2x - 3)^2 =$ ☐

$(x + 1)^3 =$ ☐

2 ON YOUR OWN Factorise.

$4x^2 - 25 =$ ☐

$x^2 - 7x + 10 =$ ☐

$8a^3 - 1 =$ ☐

3 ON YOUR OWN Simplify.

$(x + 2)^2 - (x - 2)^2 =$ ☐

4 ON YOUR OWN Simplify and write the conditions.

$\frac{x^2 - 6x + 9}{x^2 - 9} =$ ☐ conditions: ☐

5 ON YOUR OWN Work out.

$\frac{1}{x - 3} - \frac{1}{x + 3} =$ ☐

6 ON YOUR OWN For which x is $\frac{x + 1}{x^2 - 4x + 4}$ not defined?

$x =$ ☐

How am I doing?

- ☐ I can confidently multiply out, use the formulas, factorise and work with algebraic fractions.
- ☐ I can, but sometimes I need the area model or a check by substituting.
- ☐ I need more practice.