

Name : \_\_\_\_\_

## Algebraic Identity

MS3

Expand each expression using algebraic identity.

1)  $(b^3 + 5c)(b^3 - 3c)$

2)  $\left(\frac{2g}{h} + \frac{7}{4}\right)\left(\frac{2g}{h} + \frac{7}{2}\right)$

3)  $\left(\frac{w}{3} - 3\right)\left(\frac{w}{3} + 1\right)$

$1.5m + 2.3n$

5)  $\left(k^4 - \frac{1}{k}\right)\left(k^4 + \frac{1}{k}\right)$

7)  $(8a + 1.1)(8a - 1.1)$

$u + \frac{1}{3}$

9)  $\left(p - \frac{4q}{r}\right)\left(p + \frac{q}{r}\right)$

10)  $(y^2 + 5x^3)(y^2 + x^3)$

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## Algebraic Identity

Expand each expression using algebraic identity.

1)  $(b^3 + 5c)(b^3 - 3c)$

$$b^6 + 2b^3c - 15c^2$$

2)  $\left(\frac{2g}{h} + \frac{7}{4}\right)\left(\frac{2g}{h} + \frac{7}{2}\right)$

$$\frac{4g^2}{h^2} + \frac{21g}{2h} + \frac{49}{8}$$

3)  $\left(\frac{w}{3} - 3\right)\left(\frac{w}{3} + 1\right)$   $1.5m + 2.3n$

$$\frac{w^2}{9} + \frac{w}{3} - 1$$

$$26mn + 5.29n^2$$

5)  $\left(k^4 - \frac{1}{k}\right)\left(k^4 + \frac{1}{k}\right)$   $1.5m + 2.3n$

$$k^8 - 3k^3 + \frac{1}{k}$$

7)  $(8a + 1.1)(8a - 1.1)$   $u + \frac{1}{3}$

$$64a^2 + 19.2a - 1.21$$

$$u - \frac{2}{15}$$

9)  $\left(p - \frac{4q}{r}\right)\left(p + \frac{q}{r}\right)$

$$p^2 - \frac{3pq}{r} - \frac{4q^2}{r^2}$$

10)  $(y^2 + 5x^3)(y^2 + x^3)$

$$5x^6 + 6x^3y^2 + y^4$$

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