

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

## Algebraic Identities

MS2

Expand each expression using algebraic identities.

1)  $(7 - p^4)^2$

2)  $\left(uv + \frac{u}{v}\right)^2$

3)  $\left(\frac{m}{3} + 6n\right)^2$

5)  $\left(g^3 + \frac{1}{9}\right)^2$

7)  $(5rs - 0.7)^2$

9)  $(2.7w^2 + w)^2$

10)  $\left(\frac{y}{8} - 4.4\right)^2$

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## Answer key

MS2

### Algebraic Identities

Expand each expression using algebraic identities.

1)  $(7 - p^4)^2$

$$p^8 - 14p^4 + 49$$

2)  $\left(uv + \frac{u}{v}\right)^2$

$$u^2v^2 + 2u^2 + \frac{u^2}{v^2}$$

3)  $\left(\frac{m}{3} + 6n\right)^2$

$$\frac{m^2}{9} + 4mn +$$

5)  $\left(g^3 + \frac{1}{9}\right)^2$

$$g^6 + \frac{2g^3}{9} + \frac{1}{81}$$

7)  $(5rs - 0.7)^2$

$$25r^2s^2 - 7rs +$$

9)  $(2.7w^2 + w)^2$

$$7.29w^4 + 5.4w^3 + w^2$$

10)  $\left(\frac{y}{8} - 4.4\right)^2$

$$\frac{y^2}{64} - 1.1y + 19.36$$

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+ 0.64

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