Multiplying Binomials

Multiply the binomials by FOIL method.

1) $(a^3 - a) (3a + a^2)$

2) $(4x + y) (x^2 - y^2)$

3) $(p^2 + q^3) (2p^2 - 5q^3)$

4) $(g + 6) (g + 6)$

5) $(m^5 - n^5) (m^5 + n^5)$

6) $(-r + r^3) (r^2 - 1)$

7) $(3k + 4) (7 + k)$

8) $(uv - 3) (4 + 5uv)$

Multiplying Binomials

Answer key

Multiply the binomials by FOIL method.

1) $(a^3 - a)(3a + a^2)$

$$a^5 + 3a^4 - a^3 - 3a^2$$

2) $(4x + y)(x^2 - y^2)$

$$4x^3 + x^2y - 4xy^2 - y^3$$

3) $(p^2 + q^3)(2p^2 - 5q^3)$

$$-5q^6 - 3p^2q^3 + 2p^4$$

4) $(g + 6)(g + 6)$

$$g^2 + 12g + 36$$

5) $(m^5 - n^5)(m^5 + n^5)$

$$m^{10} - n^{10}$$

6) $(-r + r^3)(r^2 - 1)$

$$r^5 - 2r^3 + r$$

7) $(3k + 4)(7 + k)$

$$3k^2 + 25k + 28$$

8) $(uv - 3)(4 + 5uv)$

$$5u^2v^2 - 11uv - 12$$