Multiplying Binomials

Multiply the binomials.

1) $(5t - 1)(3 - 2t)(4 - t)$

_____

2) $(a + 3)(c^3 - 1)(6 + c^3)$

_____

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

_____

4) $(k^2 + 5)(2k^4 + 3)(3k^2 + 10)$

_____

5) $(g - g^3)(g^2 + 6)(8 + g)$

_____

6) $(x + y)(3x^2 - 4y^2)(x - 2y)$

_____

7) $(m + 3n)(n - m)(m^2 + 4n^2)$

_____

8) $(-w^2 + 3)(-4w - 5)(6 + w)$

_____

Multiplying Binomials

Name _____

Score _____

MP:18

Answer key

Multiply the binomials.

1) $(5t - 1)(3 - 2t)(4 - t)$

   $10t^3 - 57t^2 + 71t - 12$

2) $(a + 3)(c^3 - 1)(6 + c^3)$

   $ac^6 + 3c^6 + 5ac^3 + 15c^3 - 6a - 18$

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

   $-15p^3 - 14p^2q + 3pq^2 + 2q^3$

4) $(k^2 + 5)(2k^4 + 3)(3k^2 + 10)$

   $6k^8 + 50k^6 + 109k^4 + 75k^2 + 150$

5) $(g - g^3)(g^2 + 6)(8 + g)$

   $-g^6 - 8g^5 - 5g^4 - 40g^3 + 6g^2 + 48g$

6) $(x + y)(3x^2 - 4y^2)(x - 2y)$

   $3x^4 - 3x^3y - 10x^2y^2 + 4xy^3 + 8y^4$

7) $(m + 3n)(n - m)(m^2 + 4n^2)$

   $-m^4 - 4m^2n^2 - 2m^3n - 8mn^3 + 3m^2n^2 + 12n^4$

8) $(-w^2 + 3)(-4w - 5)(6 + w)$

   $4w^4 + 29w^3 + 18w^2 - 87w - 90$