

Worksheet

09/22/2019

Free on dw-math.com

Problem quickname: 1595

1)

Expand the product as shown in example a).

Quick:
1595

- a) $(c + e)(b - a) = c(b - a) + e(b - a) = -ac - ae + bc + be$
 b) $(a - b)(c + d) = a(c + d) - b(c + d) = ac + ad - bc - bd$
 c) $(b - c)(a + e) = b(a + e) - c(a + e) = ab - ac + be - ce$
 d) $(z - x)(v + y) = z(v + y) - x(v + y) = -vx + vz - xy + yz$
 e) $(z + y)(w - v) = z(w - v) + y(w - v) = -vy - vz + wy + wz$
 f) $(y - v)(x + z) = y(x + z) - v(x + z) = -vx - vz + xy + yz$
 g) $(y + w)(x + z) = y(x + z) + w(x + z) = wx + wz + xy + yz$
 h) $(y + w)(v + x) = y(v + x) + w(v + x) = vw + vy + wx + xy$
 i) $(a - d)(e + b) = a(e + b) - d(e + b) = ab + ae - bd - de$
 j) $(a + d)(b + c) = a(b + c) + d(b + c) = ab + ac + bd + cd$

2)

Expand the product as shown in example a).

Quick:
1595

- a) $(a + c)(a - 6) = a(a - 6) + c(a - 6) = a^2 - 6a + ac - 6c$
 b) $(e + a)(a - 18) = e(a - 18) + a(a - 18) = a^2 - 18a + ae - 18e$
 c) $(e + 4)(a - b) = e(a - b) + 4(a - b) = ae + 4a - be - 4b$
 d) $(a + e)(a - b) = a(a - b) + e(a - b) = a^2 - ab + ae - be$
 e) $(c - a)(a + b) = c(a + b) - a(a + b) = -a^2 - ab + ac + bc$
 f) $(x + w)(v + 6) = x(v + 6) + w(v + 6) = vw + vx + 6w + 6x$
 g) $(a - 2)(a + b) = a(a + b) - 2(a + b) = a^2 + ab - 2a - 2b$
 h) $(c + d)(a - b) = c(a - b) + d(a - b) = ac + ad - bc - bd$
 i) $(w - 15)(v + w) = w(v + w) - 15(v + w) = vw - 15v + w^2 - 15w$
 j) $(e + c)(a + b) = e(a + b) + c(a + b) = ac + ae + bc + be$

3)

Expand the product as shown in example a).

Quick:
1595

- a) $(v + w)(v + 15) = v(v + 15) + w(v + 15) = v^2 + 15v + vw + 15w$
 b) $(a + 12)(a - 39) = a(a - 39) + 12(a - 39) = a^2 - 27a - 468$
 c) $(z + 15)(v - w) = z(v - w) + 15(v - w) = vz + 15v - wz - 15w$
 d) $(w + v)(v + 13) = w(v + 13) + v(v + 13) = v^2 + 13v + vw + 13w$
 e) $(x + z)(v - w) = x(v - w) + z(v - w) = vx + vz - wx - wz$
 f) $(b + d)(a + 49) = b(a + 49) + d(a + 49) = ab + ad + 49b + 49d$
 g) $(y + x)(v - w) = y(v - w) + x(v - w) = vx + vy - wx - wy$
 h) $(w + z)(v + w) = w(v + w) + z(v + w) = vw + vz + w^2 + wz$

i) $(c + d)(a + b) = c(a + b) + d(a + b) = ac + ad + bc + bd$

j) $(d + a)(a - b) = d(a - b) + a(a - b) = a^2 - ab + ad - bd$

4)

Expand the product as shown in example a).

Quick:
1595

a) $(d - a)(a + b) = d(a + b) - a(a + b) = -a^2 - ab + ad + bd$

b) $(c - d)(a + b) = c(a + b) - d(a + b) = ac - ad + bc - bd$

c) $(v + w)(v - w) = v(v - w) + w(v - w) = v^2 - w^2$

d) $(b - 19)(a - b) = b(a - b) - 19(a - b) = ab - 19a - b^2 + 19b$

e) $(w - z)(v - w) = w(v - w) - z(v - w) = vw - wz - zv + zw$

f) $(a - d)(a + 4) = a(a + 4) - d(a + 4) = a^2 + 4a - ad - 4d$

g) $(w - v)(v + w) = w(v + w) - v(v + w) = -v^2 + w^2$

h) $(a - d)(a + b) = a(a + b) - d(a + b) = a^2 + ab - ad - bd$

i) $(x - z)(v + 7) = x(v + 7) - z(v + 7) = vx - vz + 7x - 7z$

j) $(v - 5)(v + w) = v(v + w) - 5(v + w) = v^2 + vw - 5v - 5w$

Good Luck!