

Equating Coefficients in Identities

1.	$2(3x + 8) + 6(x - 5) \equiv ax + b$
2.	$10x(x - 3) - 3x(2x - 2) \equiv cx^2 + dx$
3.	$6(2x + 1) + 2(4x - 1) + 10 \equiv ex + f$
4.	$6(x + 3) + g(2x + 10) \equiv 14x + h$
5.	$(x + 7)(x - 6) + 3 \equiv x^2 + jx + k$
6.	$(x + 3)(x + n) + mx^2 + 5x \equiv 4x^2 + 16x + p$
7.	$(x + 5)(x - 2) + qx(2x + 8) \equiv 9x^2 + 35x - 10$
8.	$(x + r)(x - s) + 2x + 15 \equiv x^2 + 8x - 25$

Answers

a	b	c	d	e	f	g	h

j	k	m	n	p	q	r	s

Equating Coefficients in Identities: ANSWERS

1.	$2(3x + 8) + 6(x - 5) \equiv ax + b$ $6x + 16 + 6x - 30 \equiv ax + b$ $12x - 14 \equiv ax + b$ $a = 12 \quad b = -14$
2.	$10x(x - 3) - 3x(2x - 2) \equiv cx^2 + dx$ $10x^2 - 30x - 6x^2 + 6x \equiv cx^2 + dx$ $4x^2 - 24x \equiv cx^2 + dx$ $c = 4 \quad d = -24$
3.	$6(2x + 1) + 2(4x - 1) + 10 \equiv ex + f$ $12x + 6 + 8x - 2 + 10 \equiv ex + f$ $20x + 14 \equiv ex + f$ $e = 20 \quad f = 14$
4.	$6(x + 3) + g(2x + 10) \equiv 14x + h$ $6x + 18 + 2gx + 20 \equiv 14x + h$ $(6 + 2g)x + 38 \equiv 14x + h$ $g = 4 \quad h = 38$
5.	$(x + 7)(x - 6) + 3 \equiv x^2 + jx + k$ $x^2 + 7x - 6x - 42 + 3 \equiv x^2 + jx + k$ $x^2 + x - 39 \equiv x^2 + jx + k$ $j = 1 \quad k = -39$
6.	$(x + 3)(x + n) + mx^2 + 5x \equiv 4x^2 + 16x + p$ $x^2 + 3x + nx + 3n + mx^2 + 5x \equiv 4x^2 + 16x + p$ $(1 + m)x^2 + (8 + n)x + 3n \equiv 4x^2 + 16x + p$ $m = 3 \quad n = 8 \quad p = 24$
7.	$(x + 5)(x - 2) + qx(2x + 8) \equiv 9x^2 + 35x - 10$ $x^2 + 5x - 2x - 10 + 2qx^2 + 8qx \equiv 9x^2 + 35x - 10$ $(1 + 2q)x^2 + (3 + 8q)x - 10 \equiv 9x^2 + 35x - 10$ $q = 4$
8.	$(x + r)(x - s) + 2x + 15 \equiv x^2 + 8x - 25$ $x^2 + rx - sx - sr + 2x + 15 \equiv x^2 + 8x - 25$ $x^2 + (r - s + 2)x + (15 - sr) \equiv x^2 + 8x - 25$ $r - s = 6 \quad rs = 40$ $r = 10 \quad s = 4$

Answers

a	b	c	d	e	f	g	h
12	-14	4	-24	20	14	4	38

j	k	m	n	p	q	r	s
1	-39	3	8	24	4	10	4