

6. Simplify the expressions:

$$-x \times 2$$

$$x \times -3$$

$$-x \times -4$$

$$x \times -5$$

$$-x \times 2 \times 2$$

$$x \times -3 \times -2$$

$$-x \times 4 \times -2$$

$$x \times -5 \times 2$$

$$-2x \times 2$$

$$2x \times -3$$

$$-2x \times -4$$

$$2x \times -5$$

$$-x \times 2x$$

$$x \times -3x$$

$$-x \times -4x$$

$$x \times -5x$$

$$-x \times 2x \times 2$$

$$x \times -3x \times -2$$

$$-x \times 4x \times -2$$

$$x \times -5x \times 2$$

$$-2x \times -2x \times 2$$

$$2x \times 3x \times -2$$

$$-2x \times -4x \times -2$$

$$2x \times -5x \times -2$$

7. Work out the products

$-1 \times 1$

$-1 \times 2$

$-1 \times 3$

$-1 \times 4$

$(1-1) \times 1$

$(1-1) \times -2$

$(1+1) \times -3$

$(1-1) \times -4$

$1 \times 1 - 1 \times 1$

$1 \times -2 - 1 \times -2$

$1 \times -3 + 1 \times -3$

$1 \times -4 - 1 \times -4$

$(1-2) \times 1$

$(1-2) \times -2$

$(1+2) \times -3$

$(1-2) \times -4$

$1 \times 1 - 2 \times 1$

$1 \times -2 - 2 \times -2$

$1 \times -3 + 2 \times -3$

$1 \times -4 - 2 \times -4$

$(1-3) \times 1$

$(1-3) \times -2$

$(1+3) \times -3$

$(1-3) \times -4$

$1 \times 1 - 3 \times 1$

$1 \times -2 - 3 \times -2$

$1 \times -3 + 3 \times -3$

$1 \times -4 - 3 \times -4$

$(1-4) \times 1$

$(1-4) \times -2$

$(1+4) \times -3$

$(1-4) \times -4$

$1 \times 1 - 4 \times 1$

$1 \times -2 - 4 \times -2$

$1 \times -3 + 4 \times -3$

$1 \times -4 - 4 \times -4$

$(x-1) \times 2$

$(x-2) \times -2$

$(x+3) \times -2$

$$(2x-1) \times 2$$

$$(2x-2) \times -2$$

$$(2x+3) \times -2$$

$$(x-1) \times x$$

$$(x-2) \times -x$$

$$(x+3) \times -x$$

$$(2x-1) \times x$$

$$(2x-2) \times -x$$

$$(2x+3) \times -x$$

$$(x-1) \times 2x$$

$$(x-2) \times -2x$$

$$(x+3) \times -2x$$

$$(2x-1) \times 2x$$

$$(2x-2) \times -2x$$

$$(2x+3) \times -2x$$

8. Expand and simplify:

$$2(x-1)+2(x-1)$$

$$2(x-2)+2(x-1)$$

$$2(2x-1)+2(x-1)$$

$$-2(2x-2)+2(x-1)$$

$$x(x-1)+2(x-1)$$

$$-x(x-2)+2(x-1)$$

$$x(2x-1)+2(x-1)$$

$$-x(2x-2)+2(x-1)$$

$$2x(x-1)+2(x-1)$$

$$-2x(x-2)+2(x-1)$$

$$2x(2x-1)+2(x-1)$$

$$-2x(2x-2)+2(x-1)$$

$$2(x-1)-2(x-1)$$

$$2(x-2)-2(x-1)$$

$$2(2x-1)-2(x-1)$$

$$-2(2x-2)-2(x-1)$$

$$x(x-1)-2(x-1)$$

$$-x(x-2)-2(x-1)$$

$$x(2x-1)-2(x-1)$$

$$-x(2x-2)-2(x-1)$$

$$2x(x-1)-2(x-1)$$

$$-2x(x-2)-2(x-1)$$

$$2x(2x-1)-2(x-1)$$

$$-2x(2x-2)-2(x-1)$$

$$2(x-1)+2(2x-1)$$

$$2(x-2)+2(2x-1)$$

$$2(2x-1)+2(2x-1)$$

$$-2(2x-2)+2(2x-1)$$

$$x(x-1)+2(2x-1)$$

$$-x(x-2)+2(2x-1)$$

$$x(2x-1)+2(2x-1)$$

$$-x(2x-2)+2(2x-1)$$

$$2x(x-1)+2(2x-1)$$

$$-2x(x-2)+2(2x-1)$$

$$2x(2x-1)+2(2x-1)$$

$$-2x(2x-2)+2(2x-1)$$

$$2(x-1)-2(2x-1)$$

$$2(x-2)-2(2x-1)$$

$$2(2x-1)-2(2x-1)$$

$$-2(2x-2)-2(2x-1)$$

$$x(x-1)-2(2x-1)$$

$$-x(x-2)-2(2x-1)$$

$$x(2x-1)-2(2x-1)$$

$$-x(2x-2)-2(2x-1)$$

$$2x(x-1)-2(2x-1)$$

$$-2x(x-2)-2(2x-1)$$

$$2x(2x-1)-2(2x-1)$$

$$-2x(2x-2)-2(2x-1)$$

9. Complete the table:

Factorised form	Expanded form
$2(x+1)$	$2x+2$
$3(x+1)$	$3x+3$
$2(x+2)$	$2x+4$
$3(x+2)$	
$2(2x+1)$	
$3(2x+1)$	
	$2x+6$
	$3x+9$
	$4x+6$
	$6x+9$
	$4x+10$
	$6x+15$
	$6x+10$
	$6x+15$
	$2x-6$
	$3x-9$
	$4x-6$
	$6x-9$
	$4x-10$

10. Factorise the expressions:

$2x+2$

$3x+3$

$4x+4$

$5x+5$



$2x+4$

$3x+6$

$4x+8$

$5x+10$

$2x+6$

$3x+9$

$4x+12$

$5x+15$

$2x+8$

$3x+12$

$4x+16$

$5x+20$

$4x+2$

$6x+3$

$8x+4$

$10x+5$

$4x+4$

$6x+6$

$8x+8$

$10x+10$

$4x+6$

$6x+9$

$8x+12$

$10x+15$

$4x+8$

$6x+12$

$8x+16$

$10x+20$

11. Complete the table:

Factorised form	Expanded form
$2(x-1)$	$2x-2$
$3(x-1)$	$3x-3$

$-2(x+2)$	$-2x-4$
$3(-x+2)$	
$-2(2x-1)$	
$-3(2x-1)$	
	$2x-6$
	$3x-9$
	$-4x-6$
	$-6x-9$
	$-4x+10$
	$-6x+15$
	$6x-10$
	$6x-15$
	$-2x-6$
	$-3x-9$
	$-4x+6$
	$-6x+9$
	$-4x+10$

12. Factorise the expressions:

$2x-2$

$3x-3$

$4x-4$

$5x-5$

$-2x-4$

$-3x-6$

$-4x-8$

$-5x-10$

$-2x+6$

$-3x+9$

$-4x+12$

$-5x+15$

$2x-8$

$3x-12$

$4x-16$

$5x-20$

$-4x-2$

$-6x-3$

$-8x-4$

$-10x-5$

$-4x+4$

$-6x+6$

$-8x+8$

$-10x+10$

$4x-6$

$6x-9$

$8x-12$

$10x-15$

$-4x-8$

$-6x-12$

$-8x-16$

$-10x-20$

12.5. Factorise the expressions:

$2xy+2x$

$3xy+3x$

$4xy+4x$

$5xy+5x$

$2xy+4x$

$3xy+6x$

$4xy+8x$

$5xy+10x$

$2xy+6x$

$3xy+9x$

$4xy+12x$

$5xy+15x$

$2xy+8y$

$3xy+12y$

$4xy+16y$

$5xy+20y$

$4xy+2y$

$6xy+3y$

$8xy+4y$

$10xy+5y$

$4xy+4y$

$6xy+6y$

$8xy+8y$

$10xy+10y$

$4xz+6x$

$6xz+9x$

$8xz+12xy$

$10xz+15xy$

$4xz+8xy$

$6xz+12xy$

$8xz+16xy$

$10xz+20xy$

13. Factorise the expressions:

$2xy-2x$

$3xy-3x$

$4xy-4x$

$-2xy-4x$

$-3x-6x$

$-4xy-8x$

$-5xy-10x$

$-2xy+6x$

$-3xy+9x$

$-4xy+12x$

$-5xy+15x$

$2xy - 8x$

$3xy - 12x$

$4xy - 16x$

$5xy - 20x$

$-4xy - 2y$

$-6xy - 3y$

$-8xy - 4y$

$-10xy - 5y$

$-4xy + 4y$

$-6xy + 6y$

$-8xy + 8y$

$-10xy + 10y$

$4xy - 6y$

$6xy - 9y$

$8xy - 12y$

$10xy - 15y$

$-4xy - 8y$

$-6xy - 12y$

$-8xy - 16y$

$-10xy - 20y$