



Expand each problem using the box method.

1) $(5x^2+1x-7)(1x^2-2x+9)$

2) $(1x^2-9x)(1x^2+2x)$

3) $(-4x^2-8x)(9x^2+6x-6)$

4) $(-6x^2-1x)(8x^2+3x+1)$

5) $(-4x^2-9x+8)(-4x^2-9x-6)$

6) $(-4x^2-8x)(7x^2-3x+7)$

7) $(-9x^2-6x+3)(-4x^2-4x)$

8) $(-8x^2+4x)(8x^2+8x)$

9) $(5x^2-9x+5)(-2x^2+5x)$

10) $(-2x^2-8x)(4x^2+3x)$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Expand each problem using the box method.

1) $(5x^2+1x+7)(1x^2+2x+9)$

| | | | |
|--------|----------|---------|---------|
| | $5x^2$ | $1x$ | -7 |
| $1x^2$ | $5x^4$ | $1x^3$ | $-7x^2$ |
| $-2x$ | $-10x^3$ | $-2x^2$ | $14x$ |
| 9 | $45x^2$ | $9x$ | -63 |

2) $(1x^2+9x)(1x^2+2x)$

| | | |
|--------|--------|----------|
| | $1x^2$ | $-9x$ |
| $1x^2$ | $1x^4$ | $-9x^3$ |
| $2x$ | $2x^3$ | $-18x^2$ |

3) $(-4x^2+8x)(9x^2+6x+6)$

| | | |
|--------|----------|----------|
| | $-4x^2$ | $-8x$ |
| $9x^2$ | $-36x^4$ | $-72x^3$ |
| $6x$ | $-24x^3$ | $-48x^2$ |
| -6 | $24x^2$ | $48x$ |

4) $(-6x^2+1x)(8x^2+3x+1)$

| | | |
|--------|----------|---------|
| | $-6x^2$ | $-1x$ |
| $8x^2$ | $-48x^4$ | $-8x^3$ |
| $3x$ | $-18x^3$ | $-3x^2$ |
| 1 | $-6x^2$ | $-1x$ |

5) $(-4x^2+9x+8)(-4x^2+9x+6)$

| | | | |
|---------|---------|---------|----------|
| | $-4x^2$ | $-9x$ | 8 |
| $-4x^2$ | $16x^4$ | $36x^3$ | $-32x^2$ |
| $-9x$ | $36x^3$ | $81x^2$ | $-72x$ |
| -6 | $24x^2$ | $54x$ | -48 |

6) $(-4x^2+8x)(7x^2+3x+7)$

| | | |
|--------|----------|----------|
| | $-4x^2$ | $-8x$ |
| $7x^2$ | $-28x^4$ | $-56x^3$ |
| $-3x$ | $12x^3$ | $24x^2$ |
| 7 | $-28x^2$ | $-56x$ |

7) $(-9x^2+6x+3)(-4x^2+4x)$

| | | | |
|---------|---------|---------|----------|
| | $-9x^2$ | $-6x$ | 3 |
| $-4x^2$ | $36x^4$ | $24x^3$ | $-12x^2$ |
| $-4x$ | $36x^3$ | $24x^2$ | $-12x$ |

8) $(-8x^2+4x)(8x^2+8x)$

| | | |
|--------|----------|---------|
| | $-8x^2$ | $4x$ |
| $8x^2$ | $-64x^4$ | $32x^3$ |
| $8x$ | $-64x^3$ | $32x^2$ |

9) $(5x^2+9x+5)(-2x^2+5x)$

| | | | |
|---------|----------|----------|----------|
| | $5x^2$ | $-9x$ | 5 |
| $-2x^2$ | $-10x^4$ | $18x^3$ | $-10x^2$ |
| $5x$ | $25x^3$ | $-45x^2$ | $25x$ |

10) $(-2x^2+8x)(4x^2+3x)$

| | | |
|--------|---------|----------|
| | $-2x^2$ | $-8x$ |
| $4x^2$ | $-8x^4$ | $-32x^3$ |
| $3x$ | $-6x^3$ | $-24x^2$ |

Answers

1. $5x^4-9x^3+36x^2+23x-63$

2. $x^4-7x^3-18x^2$

3. $-36x^4-96x^3-24x^2+48x$

4. $-48x^4-26x^3-9x^2-1x$

5. $16x^4+72x^3+73x^2-18x-48$

6. $-28x^4-44x^3-4x^2-56x$

7. $36x^4+60x^3+12x^2-12x$

8. $-64x^4-32x^3+32x^2$

9. $-10x^4+43x^3-55x^2+25x$

10. $-8x^4-38x^3-24x^2$