



Expand each problem using the box method.

1) $(8x^2+8x+3)(-7x^2+2x)$

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

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

4) $(-1x^2+-3x+5)(-8x^2+-4x)$

5) $(-9x^2+-3x)(8x^2+-4x+-7)$

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

7) $(-9x^2+6x+5)(1x^2+-3x)$

8) $(-8x^2+-6x+2)(7x^2+9x)$

9) $(3x^2+-1x+-9)(-9x^2+-3x)$

10) $(-8x^2+6x)(-2x^2+-5x)$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Expand each problem using the box method.

1) $(8x^2+8x+3)(-7x^2+2x)$

| | | | |
|---------|----------|----------|---------|
| | $8x^2$ | $8x$ | -3 |
| $-7x^2$ | $-56x^4$ | $-56x^3$ | $21x^2$ |
| $2x$ | $16x^3$ | $16x^2$ | $-6x$ |

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

| | | |
|---------|----------|----------|
| | $2x^2$ | $4x$ |
| $-7x^2$ | $-14x^4$ | $-28x^3$ |
| $9x$ | $18x^3$ | $36x^2$ |

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

| | | | |
|---------|----------|----------|---------|
| | $-2x^2$ | $6x$ | 3 |
| $-2x^2$ | $4x^4$ | $-12x^3$ | $-6x^2$ |
| $7x$ | $-14x^3$ | $42x^2$ | $21x$ |

4) $(-1x^2+-3x+5)(-8x^2+-4x)$

| | | | |
|---------|---------|---------|----------|
| | $-1x^2$ | $-3x$ | 5 |
| $-8x^2$ | $8x^4$ | $24x^3$ | $-40x^2$ |
| $-4x$ | $4x^3$ | $12x^2$ | $-20x$ |

5) $(-9x^2+-3x)(8x^2+-4x+-7)$

| | | |
|--------|----------|----------|
| | $-9x^2$ | $-3x$ |
| $8x^2$ | $-72x^4$ | $-24x^3$ |
| $-4x$ | $36x^3$ | $12x^2$ |
| -7 | $63x^2$ | $21x$ |

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

| | | |
|--------|----------|----------|
| | $3x^2$ | $6x$ |
| $4x^2$ | $12x^4$ | $24x^3$ |
| $-6x$ | $-18x^3$ | $-36x^2$ |
| 8 | $24x^2$ | $48x$ |

7) $(-9x^2+6x+5)(1x^2+-3x)$

| | | | |
|--------|---------|----------|--------|
| | $-9x^2$ | $6x$ | 5 |
| $1x^2$ | $-9x^4$ | $6x^3$ | $5x^2$ |
| $-3x$ | $27x^3$ | $-18x^2$ | $-15x$ |

8) $(-8x^2+-6x+2)(7x^2+9x)$

| | | | |
|--------|----------|----------|---------|
| | $-8x^2$ | $-6x$ | 2 |
| $7x^2$ | $-56x^4$ | $-42x^3$ | $14x^2$ |
| $9x$ | $-72x^3$ | $-54x^2$ | $18x$ |

9) $(3x^2+-1x+-9)(-9x^2+-3x)$

| | | | |
|---------|----------|--------|---------|
| | $3x^2$ | $-1x$ | -9 |
| $-9x^2$ | $-27x^4$ | $9x^3$ | $81x^2$ |
| $-3x$ | $-9x^3$ | $3x^2$ | $27x$ |

10) $(-8x^2+6x)(-2x^2+-5x)$

| | | |
|---------|---------|----------|
| | $-8x^2$ | $6x$ |
| $-2x^2$ | $16x^4$ | $-12x^3$ |
| $-5x$ | $40x^3$ | $-30x^2$ |

Answers

1. $-56x^4-40x^3+37x^2-6x$

2. $-14x^4-10x^3+36x^2$

3. $4x^4-26x^3+36x^2+21x$

4. $8x^4+28x^3-28x^2-20x$

5. $-72x^4+12x^3+75x^2+21x$

6. $12x^4+6x^3-12x^2+48x$

7. $-9x^4+33x^3-13x^2-15x$

8. $-56x^4-114x^3-40x^2+18x$

9. $-27x^4+0x^3+84x^2+27x$

10. $16x^4+28x^3-30x^2$