



Expand each problem using the box method.

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

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

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

4) $(9x^2+8x)(-1x^2+8x+-1)$

5) $(-3x^2+3x+-7)(-6x^2+8x+2)$

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

7) $(-6x^2+-6x)(-8x^2+-2x+-1)$

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

9) $(-6x^2+-5x)(-9x^2+1x+8)$

10) $(-1x^2+6x+4)(8x^2+9x+8)$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Expand each problem using the box method.

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

| | | |
|---------|---------|----------|
| | $1x^2$ | $7x$ |
| $-2x^2$ | $-2x^4$ | $-14x^3$ |
| $-8x$ | $-8x^3$ | $-56x^2$ |

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

| | | |
|--------|----------|----------|
| | $5x^2$ | $4x$ |
| $8x^2$ | $40x^4$ | $32x^3$ |
| $-6x$ | $-30x^3$ | $-24x^2$ |

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

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

4) $(9x^2+8x)(-1x^2+8x+-1)$

| | | |
|---------|---------|---------|
| | $9x^2$ | $8x$ |
| $-1x^2$ | $-9x^4$ | $-8x^3$ |
| $8x$ | $72x^3$ | $64x^2$ |
| -1 | $-9x^2$ | $-8x$ |

5) $(-3x^2+3x+-7)(-6x^2+8x+2)$

| | | | |
|---------|----------|----------|---------|
| | $-3x^2$ | $3x$ | -7 |
| $-6x^2$ | $18x^4$ | $-18x^3$ | $42x^2$ |
| $8x$ | $-24x^3$ | $24x^2$ | $-56x$ |
| 2 | $-6x^2$ | $6x$ | -14 |

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

| | | | |
|--------|---------|----------|----------|
| | $7x^2$ | $-3x$ | -2 |
| $9x^2$ | $63x^4$ | $-27x^3$ | $-18x^2$ |
| $1x$ | $7x^3$ | $-3x^2$ | $-2x$ |

7) $(-6x^2+-6x)(-8x^2+-2x+-1)$

| | | |
|---------|---------|---------|
| | $-6x^2$ | $-6x$ |
| $-8x^2$ | $48x^4$ | $48x^3$ |
| $-2x$ | $12x^3$ | $12x^2$ |
| -1 | $6x^2$ | $6x$ |

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

| | | | |
|--------|---------|----------|----------|
| | $7x^2$ | $-9x$ | -8 |
| $2x^2$ | $14x^4$ | $-18x^3$ | $-16x^2$ |
| $4x$ | $28x^3$ | $-36x^2$ | $-32x$ |

9) $(-6x^2+-5x)(-9x^2+1x+8)$

| | | |
|---------|----------|---------|
| | $-6x^2$ | $-5x$ |
| $-9x^2$ | $54x^4$ | $45x^3$ |
| $1x$ | $-6x^3$ | $-5x^2$ |
| 8 | $-48x^2$ | $-40x$ |

10) $(-1x^2+6x+4)(8x^2+9x+8)$

| | | | |
|--------|---------|---------|---------|
| | $-1x^2$ | $6x$ | 4 |
| $8x^2$ | $-8x^4$ | $48x^3$ | $32x^2$ |
| $9x$ | $-9x^3$ | $54x^2$ | $36x$ |
| 8 | $-8x^2$ | $48x$ | 32 |

Answers

1. $-2x^4 - 22x^3 - 56x^2$

2. $40x^4 + 2x^3 - 24x^2$

3. $-48x^4 + 24x^3 + 192x^2 - 72x$

4. $-9x^4 + 64x^3 + 55x^2 - 8x$

5. $18x^4 - 42x^3 + 60x^2 - 50x - 14$

6. $63x^4 - 20x^3 - 21x^2 - 2x$

7. $48x^4 + 60x^3 + 18x^2 + 6x$

8. $14x^4 + 10x^3 - 52x^2 - 32x$

9. $54x^4 + 39x^3 - 53x^2 - 40x$

10. $-8x^4 + 39x^3 + 78x^2 + 84x + 32$