



Expand each problem using the box method.

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

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

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

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

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

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

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

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

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

10)  $(-7x^2 - 9x)(-8x^2 + 9x - 4)$

Answers

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



Expand each problem using the box method.

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

	$7x^2$	$-9x$	
$6x^2$	$42x^4$	$-54x^3$	
$-3x$	$-21x^3$	$27x^2$	
$3$	$21x^2$	$-27x$	

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

	$3x^2$	$-2x$	$-6$
$-4x^2$	$-12x^4$	$8x^3$	$24x^2$
$-8x$	$-24x^3$	$16x^2$	$48x$
$-2$	$-6x^2$	$4x$	$12$

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

	$-8x^2$	$-2x$
$6x^2$	$-48x^4$	$-12x^3$
$3x$	$-24x^3$	$-6x^2$
$-8$	$64x^2$	$16x$

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

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

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

	$9x^2$	$-4x$	$-5$
$-7x^2$	$-63x^4$	$28x^3$	$35x^2$
$2x$	$18x^3$	$-8x^2$	$-10x$
$3$	$27x^2$	$-12x$	$-15$

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

	$2x^2$	$-9x$	$-4$
$-3x^2$	$-6x^4$	$27x^3$	$12x^2$
$-6x$	$-12x^3$	$54x^2$	$24x$
$4$	$8x^2$	$-36x$	$-16$

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

	$-2x^2$	$-2x$
$-8x^2$	$16x^4$	$16x^3$
$-2x$	$4x^3$	$4x^2$

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

	$-6x^2$	$-8x$
$3x^2$	$-18x^4$	$-24x^3$
$-7x$	$42x^3$	$56x^2$
$2$	$-12x^2$	$-16x$

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

	$7x^2$	$-9x$
$9x^2$	$63x^4$	$-81x^3$
$-4x$	$-28x^3$	$36x^2$

10)  $(-7x^2-9x)(-8x^2+9x-4)$

	$-7x^2$	$-9x$
$-8x^2$	$56x^4$	$72x^3$
$9x$	$-63x^3$	$-81x^2$
$-4$	$28x^2$	$36x$

Answers

- $42x^4-75x^3+48x^2-27x$
- $-12x^4-16x^3+34x^2+52x+12$
- $-48x^4-36x^3+58x^2+16x$
- $-56x^4-38x^3+18x^2+6x$
- $-63x^4+46x^3+54x^2-22x-15$
- $-6x^4+15x^3+74x^2-12x-16$
- $16x^4+20x^3+4x^2$
- $-18x^4+18x^3+44x^2-16x$
- $63x^4-109x^3+36x^2$
- $56x^4+9x^3-53x^2+36x$



Expand each problem using the box method.

1)  $(-9x^2+8x+7)(-3x^2+2x+6)$

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

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

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

5)  $(3x^2-8x-3)(-8x^2-8x-5)$

6)  $(-8x^2-9x)(7x^2+3x)$

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

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

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

10)  $(5x^2-4x+6)(-5x^2-8x)$

Answers

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



Expand each problem using the box method.

1)  $(-9x^2+8x+7)(-3x^2+2x+6)$

	$-9x^2$	$8x$	$7$
$-3x^2$	$27x^4$	$-24x^3$	$-21x^2$
$2x$	$-18x^3$	$16x^2$	$14x$
$6$	$-54x^2$	$48x$	$42$

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

	$3x^2$	$3x$	$-7$
$-5x^2$	$-15x^4$	$-15x^3$	$35x^2$
$-4x$	$-12x^3$	$-12x^2$	$28x$
$4$	$12x^2$	$12x$	$-28$

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

	$-3x^2$	$4x$	$9$
$7x^2$	$-21x^4$	$28x^3$	$63x^2$
$4x$	$-12x^3$	$16x^2$	$36x$

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

	$-3x^2$	$7x$
$3x^2$	$-9x^4$	$21x^3$
$-9x$	$27x^3$	$-63x^2$
$2$	$-6x^2$	$14x$

5)  $(3x^2-8x-3)(-8x^2-8x-5)$

	$3x^2$	$-8x$	$-3$
$-8x^2$	$-24x^4$	$64x^3$	$24x^2$
$-8x$	$-24x^3$	$64x^2$	$24x$
$-5$	$-15x^2$	$40x$	$15$

6)  $(-8x^2-9x)(7x^2+3x)$

	$-8x^2$	$-9x$
$7x^2$	$-56x^4$	$-63x^3$
$3x$	$-24x^3$	$-27x^2$

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

	$-5x^2$	$7x$
$-7x^2$	$35x^4$	$-49x^3$
$2x$	$-10x^3$	$14x^2$
$-3$	$15x^2$	$-21x$

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

	$2x^2$	$3x$	$5$
$-7x^2$	$-14x^4$	$-21x^3$	$-35x^2$
$-9x$	$-18x^3$	$-27x^2$	$-45x$
$5$	$10x^2$	$15x$	$25$

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

	$-7x^2$	$3x$
$-8x^2$	$56x^4$	$-24x^3$
$-7x$	$49x^3$	$-21x^2$
$5$	$-35x^2$	$15x$

10)  $(5x^2-4x+6)(-5x^2-8x)$

	$5x^2$	$-4x$	$6$
$-5x^2$	$-25x^4$	$20x^3$	$-30x^2$
$-8x$	$-40x^3$	$32x^2$	$-48x$

Answers

1.  $27x^4-42x^3-59x^2+62x+42$

2.  $-15x^4-27x^3+35x^2+40x-28$

3.  $-21x^4+16x^3+79x^2+36x$

4.  $-9x^4+48x^3-69x^2+14x$

5.  $-24x^4+40x^3+73x^2+64x+15$

6.  $-56x^4-87x^3-27x^2$

7.  $35x^4-59x^3+29x^2-21x$

8.  $-14x^4-39x^3-52x^2-30x+25$

9.  $56x^4+25x^3-56x^2+15x$

10.  $-25x^4-20x^3+2x^2-48x$



Expand each problem using the box method.

1)  $(-9x^2+6x)(-7x^2-4x)$

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

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

4)  $(-4x^2-7x)(6x^2-2x-2)$

5)  $(-2x^2-5x)(5x^2-3x+5)$

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

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

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

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

10)  $(-7x^2+2x)(-4x^2+5x+4)$

Answers

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



Expand each problem using the box method.

1)  $(-9x^2+6x)(-7x^2-4x)$

	$-9x^2$	$6x$	
$-7x^2$	$63x^4$	$-42x^3$	
$-4x$	$36x^3$	$-24x^2$	

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

	$-8x^2$	$9x$	$2$
$5x^2$	$-40x^4$	$45x^3$	$10x^2$
$7x$	$-56x^3$	$63x^2$	$14x$

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

	$6x^2$	$3x$	$-3$
$6x^2$	$36x^4$	$18x^3$	$-18x^2$
$-5x$	$-30x^3$	$-15x^2$	$15x$

4)  $(-4x^2-7x)(6x^2-2x-2)$

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

5)  $(-2x^2-5x)(5x^2-3x+5)$

	$-2x^2$	$-5x$
$5x^2$	$-10x^4$	$-25x^3$
$-3x$	$6x^3$	$15x^2$
$5$	$-10x^2$	$-25x$

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

	$-4x^2$	$-2x$	$-7$
$9x^2$	$-36x^4$	$-18x^3$	$-63x^2$
$4x$	$-16x^3$	$-8x^2$	$-28x$
$-2$	$8x^2$	$4x$	$14$

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

	$7x^2$	$-3x$
$8x^2$	$56x^4$	$-24x^3$
$-3x$	$-21x^3$	$9x^2$

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

	$3x^2$	$5x$
$-7x^2$	$-21x^4$	$-35x^3$
$-8x$	$-24x^3$	$-40x^2$

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

	$6x^2$	$6x$	$-2$
$3x^2$	$18x^4$	$18x^3$	$-6x^2$
$5x$	$30x^3$	$30x^2$	$-10x$
$-9$	$-54x^2$	$-54x$	$18$

10)  $(-7x^2+2x)(-4x^2+5x+4)$

	$-7x^2$	$2x$
$-4x^2$	$28x^4$	$-8x^3$
$5x$	$-35x^3$	$10x^2$
$4$	$-28x^2$	$8x$

Answers

- $63x^4-6x^3-24x^2$
- $-40x^4-11x^3+73x^2+14x$
- $36x^4-12x^3-33x^2+15x$
- $-24x^4-34x^3+22x^2+14x$
- $-10x^4-19x^3+5x^2-25x$
- $-36x^4-34x^3-63x^2-24x+14$
- $56x^4-45x^3+9x^2$
- $-21x^4-59x^3-40x^2$
- $18x^4+48x^3-30x^2-64x+18$
- $28x^4-43x^3-18x^2+8x$



Expand each problem using the box method.

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

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

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

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

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

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

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

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

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

10)  $(-6x^2+2x+7)(-6x^2-4x-6)$

**Answers**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



Expand each problem using the box method.

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

	$-4x^2$	$2x$	
$8x^2$	$-32x^4$	$16x^3$	
$-9x$	$36x^3$	$-18x^2$	

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

	$-2x^2$	$6x$	$5$
$-9x^2$	$18x^4$	$-54x^3$	$-45x^2$
$-4x$	$8x^3$	$-24x^2$	$-20x$
$9$	$-18x^2$	$54x$	$45$

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

	$-4x^2$	$5x$	$7$
$-7x^2$	$28x^4$	$-35x^3$	$-49x^2$
$2x$	$-8x^3$	$10x^2$	$14x$
$-2$	$8x^2$	$-10x$	$-14$

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

	$-9x^2$	$9x$
$-8x^2$	$72x^4$	$-72x^3$
$6x$	$-54x^3$	$54x^2$

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

	$7x^2$	$-9x$	$-9$
$9x^2$	$63x^4$	$-81x^3$	$-81x^2$
$-9x$	$-63x^3$	$81x^2$	$81x$
$2$	$14x^2$	$-18x$	$-18$

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

	$4x^2$	$6x$
$5x^2$	$20x^4$	$30x^3$
$9x$	$36x^3$	$54x^2$

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

	$-3x^2$	$7x$
$-2x^2$	$6x^4$	$-14x^3$
$-5x$	$15x^3$	$-35x^2$

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

	$-5x^2$	$3x$	$4$
$3x^2$	$-15x^4$	$9x^3$	$12x^2$
$3x$	$-15x^3$	$9x^2$	$12x$
$9$	$-45x^2$	$27x$	$36$

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

	$-3x^2$	$3x$	$6$
$-3x^2$	$9x^4$	$-9x^3$	$-18x^2$
$9x$	$-27x^3$	$27x^2$	$54x$
$-2$	$6x^2$	$-6x$	$-12$

10)  $(-6x^2+2x+7)(-6x^2-4x-6)$

	$-6x^2$	$2x$	$7$
$-6x^2$	$36x^4$	$-12x^3$	$-42x^2$
$-4x$	$24x^3$	$-8x^2$	$-28x$
$-6$	$36x^2$	$-12x$	$-42$

Answers

- $-32x^4+52x^3-18x^2$
- $18x^4-46x^3-87x^2+34x+45$
- $28x^4-43x^3-31x^2+4x-14$
- $72x^4-126x^3+54x^2$
- $63x^4-144x^3+14x^2+63x-18$
- $20x^4+66x^3+54x^2$
- $6x^4+1x^3-35x^2$
- $-15x^4-6x^3-24x^2+39x+36$
- $9x^4-36x^3+15x^2+48x-12$
- $36x^4+12x^3-14x^2-40x-42$





Expand each problem using the box method.

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

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

3)  $(6x^2+8x-7)(9x^2-8x)$

4)  $(6x^2-5x)(-8x^2+3x+2)$

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

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

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

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

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

10)  $(4x^2-9x)(-3x^2-2x)$

**Answers**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



Expand each problem using the box method.

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

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

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

	$9x^2$	$5x$	$-2$
$9x^2$	$81x^4$	$45x^3$	$-18x^2$
$6x$	$54x^3$	$30x^2$	$-12x$

3)  $(6x^2+8x-7)(9x^2-8x)$

	$6x^2$	$8x$	$-7$
$9x^2$	$54x^4$	$72x^3$	$-63x^2$
$-8x$	$-48x^3$	$-64x^2$	$56x$

4)  $(6x^2-5x)(-8x^2+3x+2)$

	$6x^2$	$-5x$
$-8x^2$	$-48x^4$	$40x^3$
$3x$	$18x^3$	$-15x^2$
$2$	$12x^2$	$-10x$

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

	$-4x^2$	$4x$
$5x^2$	$-20x^4$	$20x^3$
$6x$	$-24x^3$	$24x^2$

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

	$-4x^2$	$3x$
$7x^2$	$-28x^4$	$21x^3$
$-3x$	$12x^3$	$-9x^2$

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

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

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

	$7x^2$	$9x$	$-4$
$-3x^2$	$-21x^4$	$-27x^3$	$12x^2$
$5x$	$35x^3$	$45x^2$	$-20x$
$-9$	$-63x^2$	$-81x$	$36$

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

	$3x^2$	$-9x$
$-7x^2$	$-21x^4$	$63x^3$
$3x$	$9x^3$	$-27x^2$
$-2$	$-6x^2$	$18x$

10)  $(4x^2-9x)(-3x^2-2x)$

	$4x^2$	$-9x$
$-3x^2$	$-12x^4$	$27x^3$
$-2x$	$-8x^3$	$18x^2$

Answers

1.  $-72x^4+144x^3-24x^2-48x$

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2.  $81x^4+99x^3+12x^2-12x$

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3.  $54x^4+24x^3-127x^2+56x$

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4.  $-48x^4+58x^3-3x^2-10x$

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5.  $-20x^4-4x^3+24x^2$

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6.  $-28x^4+33x^3-9x^2$

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7.  $6x^4+18x^3-24x$

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8.  $-21x^4+8x^3-6x^2-101x+36$

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9.  $-21x^4+72x^3-33x^2+18x$

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10.  $-12x^4+19x^3+18x^2$



Expand each problem using the box method.

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

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

3)  $(7x^2+7x)(5x^2+5x)$

4)  $(7x^2+3x+9)(6x^2-8x+7)$

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

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

7)  $(2x^2+5x+8)(-9x^2-6x)$

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

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

10)  $(9x^2-4x)(5x^2-3x)$

Answers

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



Expand each problem using the box method.

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

	$-2x^2$	$5x$
$-7x^2$	$14x^4$	$-35x^3$
$-7x$	$14x^3$	$-35x^2$

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

	$3x^2$	$-2x$	$-4$
$-3x^2$	$-9x^4$	$6x^3$	$12x^2$
$6x$	$18x^3$	$-12x^2$	$-24x$
$3$	$9x^2$	$-6x$	$-12$

3)  $(7x^2+7x)(5x^2+5x)$

	$7x^2$	$7x$
$5x^2$	$35x^4$	$35x^3$
$5x$	$35x^3$	$35x^2$

4)  $(7x^2+3x+9)(6x^2-8x+7)$

	$7x^2$	$3x$	$9$
$6x^2$	$42x^4$	$18x^3$	$54x^2$
$-8x$	$-56x^3$	$-24x^2$	$-72x$
$7$	$49x^2$	$21x$	$63$

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

	$-6x^2$	$-8x$
$-9x^2$	$54x^4$	$72x^3$
$9x$	$-54x^3$	$-72x^2$
$-5$	$30x^2$	$40x$

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

	$7x^2$	$5x$
$-3x^2$	$-21x^4$	$-15x^3$
$-6x$	$-42x^3$	$-30x^2$

7)  $(2x^2+5x+8)(-9x^2-6x)$

	$2x^2$	$5x$	$8$
$-9x^2$	$-18x^4$	$-45x^3$	$-72x^2$
$-6x$	$-12x^3$	$-30x^2$	$-48x$

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

	$4x^2$	$4x$
$-7x^2$	$-28x^4$	$-28x^3$
$-8x$	$-32x^3$	$-32x^2$

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

	$2x^2$	$6x$
$-3x^2$	$-6x^4$	$-18x^3$
$-9x$	$-18x^3$	$-54x^2$

10)  $(9x^2-4x)(5x^2-3x)$

	$9x^2$	$-4x$
$5x^2$	$45x^4$	$-20x^3$
$-3x$	$-27x^3$	$12x^2$

Answers

- $14x^4-21x^3-35x^2$
- $-9x^4+24x^3+9x^2-30x-12$
- $35x^4+70x^3+35x^2$
- $42x^4-38x^3+79x^2-51x+63$
- $54x^4+18x^3-42x^2+40x$
- $-21x^4-57x^3-30x^2$
- $-18x^4-57x^3-102x^2-48x$
- $-28x^4-60x^3-32x^2$
- $-6x^4-36x^3-54x^2$
- $45x^4-47x^3+12x^2$



Expand each problem using the box method.

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

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

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

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

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

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

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

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

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

10)  $(2x^2 + 6x - 7)(-3x^2 + 4x)$

**Answers**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



Expand each problem using the box method.

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

	$6x^2$	$-6x$	
$-7x^2$	$-42x^4$	$42x^3$	
$-6x$	$-36x^3$	$36x^2$	
$3$	$18x^2$	$-18x$	

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

	$2x^2$	$-7x$	$-6$
$-4x^2$	$-8x^4$	$28x^3$	$24x^2$
$-9x$	$-18x^3$	$63x^2$	$54x$

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

	$6x^2$	$-3x$
$6x^2$	$36x^4$	$-18x^3$
$3x$	$18x^3$	$-9x^2$
$6$	$36x^2$	$-18x$

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

	$7x^2$	$9x$
$-6x^2$	$-42x^4$	$-54x^3$
$-6x$	$-42x^3$	$-54x^2$
$-7$	$-49x^2$	$-63x$

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

	$-3x^2$	$-8x$
$-9x^2$	$27x^4$	$72x^3$
$4x$	$-12x^3$	$-32x^2$
$5$	$-15x^2$	$-40x$

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

	$4x^2$	$-8x$	$-9$
$9x^2$	$36x^4$	$-72x^3$	$-81x^2$
$5x$	$20x^3$	$-40x^2$	$-45x$

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

	$9x^2$	$-4x$
$-2x^2$	$-18x^4$	$8x^3$
$-6x$	$-54x^3$	$24x^2$
$6$	$54x^2$	$-24x$

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

	$3x^2$	$-7x$	$-8$
$7x^2$	$21x^4$	$-49x^3$	$-56x^2$
$-3x$	$-9x^3$	$21x^2$	$24x$

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

	$9x^2$	$9x$	$2$
$-8x^2$	$-72x^4$	$-72x^3$	$-16x^2$
$2x$	$18x^3$	$18x^2$	$4x$
$3$	$27x^2$	$27x$	$6$

10)  $(2x^2+6x-7)(-3x^2+4x)$

	$2x^2$	$6x$	$-7$
$-3x^2$	$-6x^4$	$-18x^3$	$21x^2$
$4x$	$8x^3$	$24x^2$	$-28x$

Answers

1.  $-42x^4+6x^3+54x^2-18x$

2.  $-8x^4+10x^3+87x^2+54x$

3.  $36x^4+27x^2-18x$

4.  $-42x^4-96x^3-103x^2-63x$

5.  $27x^4+60x^3-47x^2-40x$

6.  $36x^4-52x^3-121x^2-45x$

7.  $-18x^4-46x^3+78x^2-24x$

8.  $21x^4-58x^3-35x^2+24x$

9.  $-72x^4-54x^3+29x^2+31x+6$

10.  $-6x^4-10x^3+45x^2-28x$



Expand each problem using the box method.

1)  $(3x^2+7x)(-3x^2+3x-4)$

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

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

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

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

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

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

8)  $(-3x^2-9x+5)(-4x^2+6x)$

9)  $(-5x^2-8x)(-9x^2-2x-8)$

10)  $(-2x^2+8x)(-7x^2-6x-7)$

**Answers**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



Expand each problem using the box method.

1)  $(3x^2+7x)(-3x^2+3x-4)$

	$3x^2$	$7x$	
$-3x^2$	$-9x^4$	$-21x^3$	
$3x$	$9x^3$	$21x^2$	
$-4$	$-12x^2$	$-28x$	

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

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

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

	$7x^2$	$5x$
$-9x^2$	$-63x^4$	$-45x^3$
$-8x$	$-56x^3$	$-40x^2$

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

	$8x^2$	$9x$	$-2$
$-3x^2$	$-24x^4$	$-27x^3$	$6x^2$
$-7x$	$-56x^3$	$-63x^2$	$14x$

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

	$8x^2$	$-3x$	$8$
$2x^2$	$16x^4$	$-6x^3$	$16x^2$
$-8x$	$-64x^3$	$24x^2$	$-64x$
$3$	$24x^2$	$-9x$	$24$

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

	$3x^2$	$-7x$	$-4$
$2x^2$	$6x^4$	$-14x^3$	$-8x^2$
$4x$	$12x^3$	$-28x^2$	$-16x$

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

	$-7x^2$	$-3x$
$2x^2$	$-14x^4$	$-6x^3$
$7x$	$-49x^3$	$-21x^2$
$-7$	$49x^2$	$21x$

8)  $(-3x^2-9x+5)(-4x^2+6x)$

	$-3x^2$	$-9x$	$5$
$-4x^2$	$12x^4$	$36x^3$	$-20x^2$
$6x$	$-18x^3$	$-54x^2$	$30x$

9)  $(-5x^2-8x)(-9x^2-2x-8)$

	$-5x^2$	$-8x$
$-9x^2$	$45x^4$	$72x^3$
$-2x$	$10x^3$	$16x^2$
$-8$	$40x^2$	$64x$

10)  $(-2x^2+8x)(-7x^2-6x-7)$

	$-2x^2$	$8x$
$-7x^2$	$14x^4$	$-56x^3$
$-6x$	$12x^3$	$-48x^2$
$-7$	$14x^2$	$-56x$

Answers

- $-9x^4-12x^3+9x^2-28x$
- $-48x^4-86x^3-90x^2-36x$
- $-63x^4-101x^3-40x^2$
- $-24x^4-83x^3-57x^2+14x$
- $16x^4-70x^3+64x^2-73x+24$
- $6x^4-2x^3-36x^2-16x$
- $-14x^4-55x^3+28x^2+21x$
- $12x^4+18x^3-74x^2+30x$
- $45x^4+82x^3+56x^2+64x$
- $14x^4-44x^3-34x^2-56x$





Expand each problem using the box method.

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

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

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

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

5)  $(3x^2-5x)(-2x^2+3x)$

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

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

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

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

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

Answers

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



Expand each problem using the box method.

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

	$-9x^2$	$5x$
$2x^2$	$-18x^4$	$10x^3$
$7x$	$-63x^3$	$35x^2$
$5$	$-45x^2$	$25x$

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

	$2x^2$	$5x$	$2$
$-2x^2$	$-4x^4$	$-10x^3$	$-4x^2$
$-7x$	$-14x^3$	$-35x^2$	$-14x$
$8$	$16x^2$	$40x$	$16$

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

	$-7x^2$	$-5x$
$-2x^2$	$14x^4$	$10x^3$
$-6x$	$42x^3$	$30x^2$
$3$	$-21x^2$	$-15x$

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

	$9x^2$	$6x$
$-6x^2$	$-54x^4$	$-36x^3$
$6x$	$54x^3$	$36x^2$
$4$	$36x^2$	$24x$

5)  $(3x^2-5x)(-2x^2+3x)$

	$3x^2$	$-5x$
$-2x^2$	$-6x^4$	$10x^3$
$3x$	$9x^3$	$-15x^2$

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

	$4x^2$	$5x$	$5$
$-2x^2$	$-8x^4$	$-10x^3$	$-10x^2$
$-4x$	$-16x^3$	$-20x^2$	$-20x$
$-6$	$-24x^2$	$-30x$	$-30$

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

	$-6x^2$	$8x$
$-8x^2$	$48x^4$	$-64x^3$
$7x$	$-42x^3$	$56x^2$
$-6$	$36x^2$	$-48x$

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

	$-8x^2$	$2x$	$-3$
$-2x^2$	$16x^4$	$-4x^3$	$6x^2$
$-7x$	$56x^3$	$-14x^2$	$21x$
$5$	$-40x^2$	$10x$	$-15$

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

	$-5x^2$	$-3x$
$-7x^2$	$35x^4$	$21x^3$
$5x$	$-25x^3$	$-15x^2$

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

	$-8x^2$	$9x$
$-6x^2$	$48x^4$	$-54x^3$
$-2x$	$16x^3$	$-18x^2$
$6$	$-48x^2$	$54x$

Answers

1.  $-18x^4-53x^3-10x^2+25x$

2.  $-4x^4-24x^3-23x^2+26x+16$

3.  $14x^4+52x^3+9x^2-15x$

4.  $-54x^4+18x^3+72x^2+24x$

5.  $-6x^4+19x^3-15x^2$

6.  $-8x^4-26x^3-54x^2-50x-30$

7.  $48x^4-106x^3+92x^2-48x$

8.  $16x^4+52x^3-48x^2+31x-15$

9.  $35x^4-4x^3-15x^2$

10.  $48x^4-38x^3-66x^2+54x$



Expand each problem using the box method.

1)  $(-3x^2 - 2x + 8)(-2x^2 - 9x)$

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

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

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

5)  $(-2x^2 - 3x)(-3x^2 - 9x + 5)$

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

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

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

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

10)  $(7x^2 - 3x + 5)(-4x^2 - 5x)$

**Answers**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



Expand each problem using the box method.

1)  $(-3x^2 - 2x + 8)(-2x^2 - 9x)$

	$-3x^2$	$-2x$	$8$
$-2x^2$	$6x^4$	$4x^3$	$-16x^2$
$-9x$	$27x^3$	$18x^2$	$-72x$

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

	$-8x^2$	$4x$	$-6$
$2x^2$	$-16x^4$	$8x^3$	$-12x^2$
$4x$	$-32x^3$	$16x^2$	$-24x$
$-3$	$24x^2$	$-12x$	$18$

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

	$3x^2$	$-3x$	$2$
$-4x^2$	$-12x^4$	$12x^3$	$-8x^2$
$4x$	$12x^3$	$-12x^2$	$8x$
$4$	$12x^2$	$-12x$	$8$

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

	$9x^2$	$3x$
$4x^2$	$36x^4$	$12x^3$
$-4x$	$-36x^3$	$-12x^2$

5)  $(-2x^2 - 3x)(-3x^2 - 9x + 5)$

	$-2x^2$	$-3x$
$-3x^2$	$6x^4$	$9x^3$
$-9x$	$18x^3$	$27x^2$
$5$	$-10x^2$	$-15x$

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

	$5x^2$	$7x$	$8$
$-2x^2$	$-10x^4$	$-14x^3$	$-16x^2$
$7x$	$35x^3$	$49x^2$	$56x$
$2$	$10x^2$	$14x$	$16$

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

	$-9x^2$	$6x$	$-8$
$6x^2$	$-54x^4$	$36x^3$	$-48x^2$
$2x$	$-18x^3$	$12x^2$	$-16x$
$-9$	$81x^2$	$-54x$	$72$

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

	$6x^2$	$-2x$	$5$
$4x^2$	$24x^4$	$-8x^3$	$20x^2$
$-6x$	$-36x^3$	$12x^2$	$-30x$
$9$	$54x^2$	$-18x$	$45$

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

	$7x^2$	$-5x$	$-3$
$-2x^2$	$-14x^4$	$10x^3$	$6x^2$
$5x$	$35x^3$	$-25x^2$	$-15x$
$-8$	$-56x^2$	$40x$	$24$

10)  $(7x^2 - 3x + 5)(-4x^2 - 5x)$

	$7x^2$	$-3x$	$5$
$-4x^2$	$-28x^4$	$12x^3$	$-20x^2$
$-5x$	$-35x^3$	$15x^2$	$-25x$

Answers

- $6x^4 + 31x^3 + 2x^2 - 72x$
- $-16x^4 - 24x^3 + 28x^2 - 36x + 18$
- $-12x^4 + 24x^3 - 8x^2 - 4x + 8$
- $36x^4 - 24x^3 - 12x^2$
- $6x^4 + 27x^3 + 17x^2 - 15x$
- $-10x^4 + 21x^3 + 43x^2 + 70x + 16$
- $-54x^4 + 18x^3 + 45x^2 - 70x + 72$
- $24x^4 - 44x^3 + 86x^2 - 48x + 45$
- $-14x^4 + 45x^3 - 75x^2 + 25x + 24$
- $-28x^4 - 23x^3 - 5x^2 - 25x$