

Multiplicaciones con monomios

MULTIPLICACIÓN DE MONIMOS

$$(5x^5)(4x^2) = \underline{20x^7}$$



La multiplicación de **monomios** es otro **monomio** que tiene por coeficiente el producto de los coeficientes y cuya parte literal se obtiene multiplicando las potencias que tenga la misma base, es decir, sumando los exponentes.

Multiplicación de Monomios

$$\odot (4x)(2x^3) = 8x^4$$

$$\odot (-5x^4y)(3xy^5) = -15x^5y^6$$

$$\odot (-4x^5y)(-5x^3) = 20x^8y$$

Multiplique

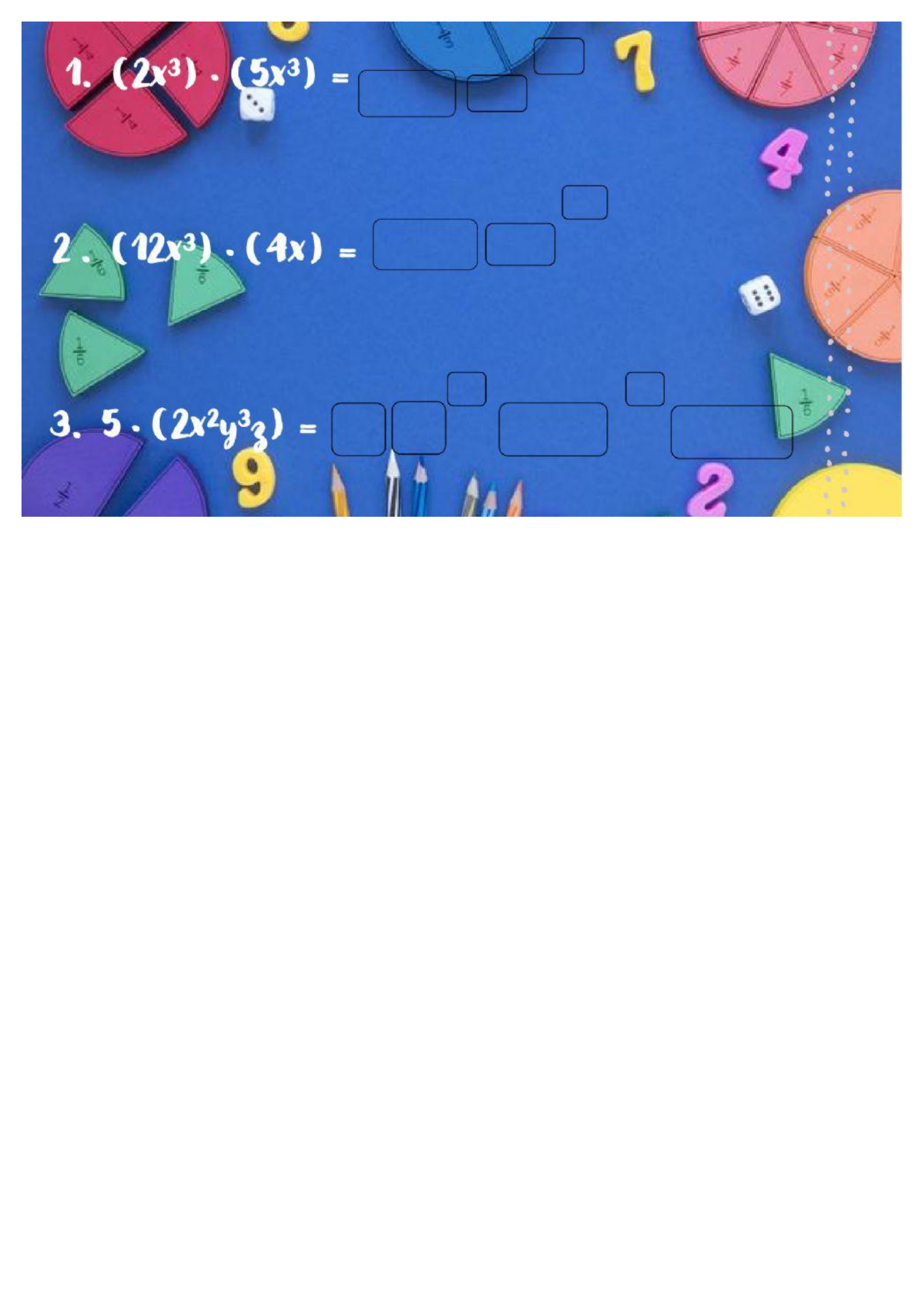
$$1) -2x^3(5x+6) = -10x^4-12x^3$$

$$2) 5x^2(3x-7) = 15x^3-35x^2$$

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

$$4) 4x^2(x^2-3x-5) = 8x^4-6x^3-20x^2$$

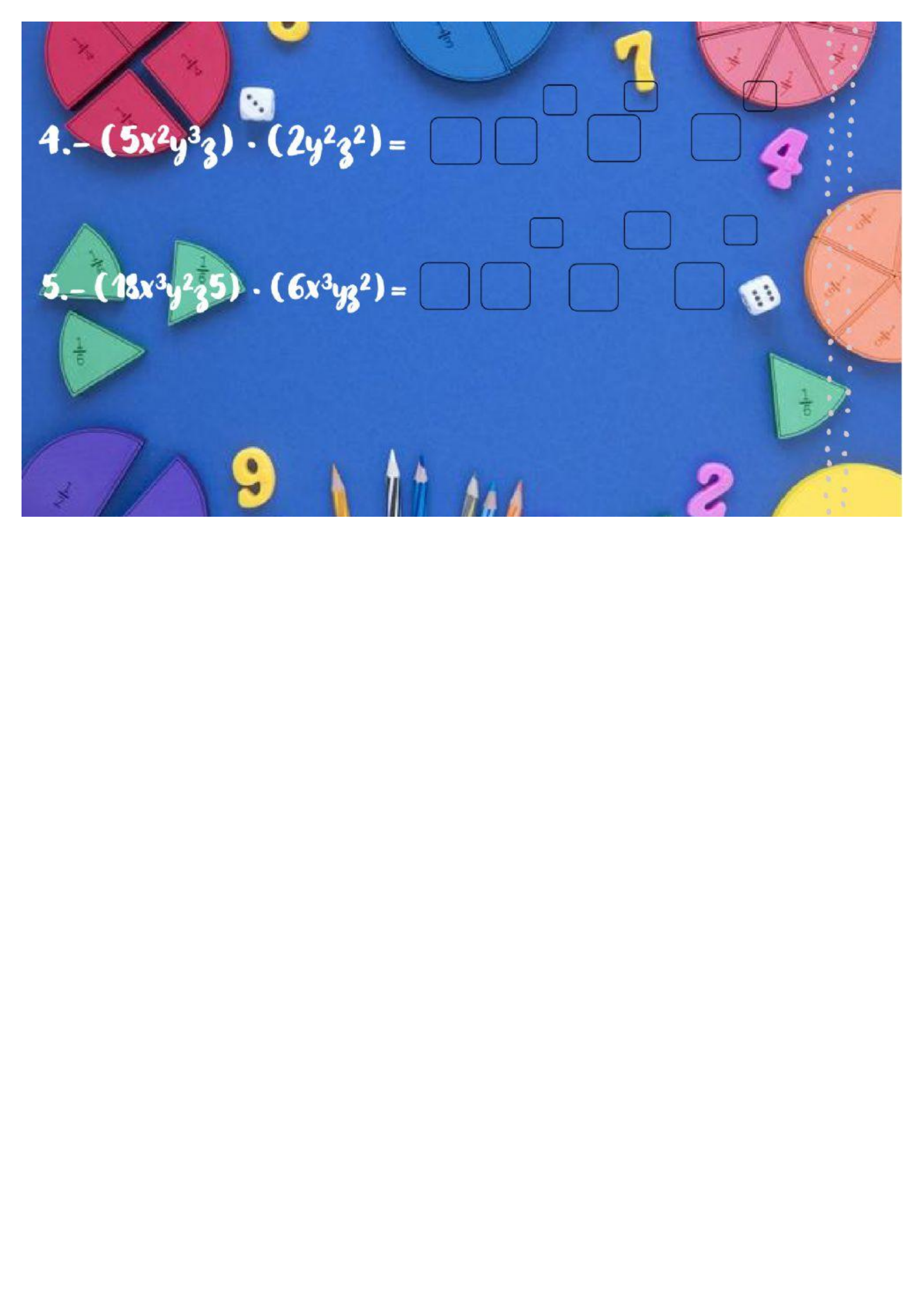
$$5) -x^2y(x^2+2xy-y^2) = -x^4y-2x^3y^2+x^2y^3$$



1. $(2x^3) \cdot (5x^3) =$

2. $(12x^3) \cdot (4x) =$

3. $5 \cdot (2x^2y^3z) =$



4. $-(5x^2y^3z) \cdot (2y^2z^2) =$

5. $-(18x^3y^2z^5) \cdot (6x^3yz^2) =$

Multiplicaciones con polinomios

Multiplicación de Polinomios

$$(a + b) * (c + d)$$

$$\begin{array}{r} 6x^2 - 8x + 6 \\ 3x^2 + 3 \\ \hline 18x^4 - 24x^3 + 18x^2 \\ 18x^2 - 24x + 18 \\ \hline 18x^4 - 24x^3 + 36x^2 - 24x + 18 \end{array}$$

www.youtube.com/enciclotareas

1. Se multiplica cada monomio del primer **polinomio** por todos los elementos del segundo **polinomio**. ...

2. Se suman los monomios del mismo grado (suma de términos semejantes) y obtenemos:

...

3. El **polinomio** obtenido es otro **polinomio** cuyo grado es la suma de los grados de los **polinomios**.

Multipliación de polinomios

$$(x^2 + 3xy)(5y + 4x - 5) =$$

$$5x^2y + 4x^3 - 5x^2 + 15xy^2 + 12x^2y - 15xy$$

$$17x^2y + 4x^3 - 5x^2 + 15xy^2 - 15xy$$

POLINOMIOS MULTIPLICACIÓN

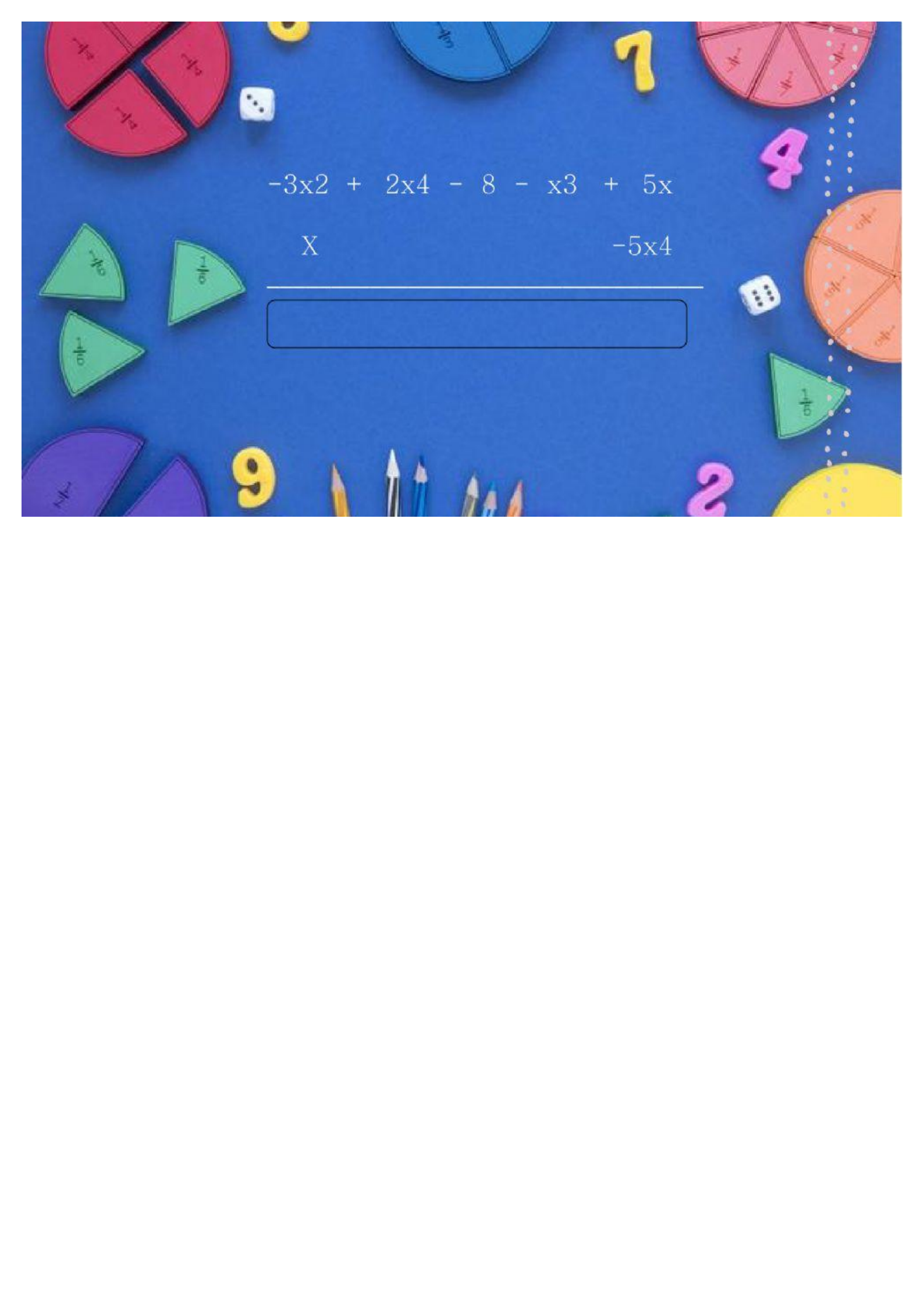
EJERCICIO:

$$(-2x^6 - x^5 + 4x - 6)(x - 3x^2 + 1)$$

$$\begin{array}{r} -2x^6 - x^5 + 4x - 6 \\ -3x^2 + x + 1 \end{array}$$

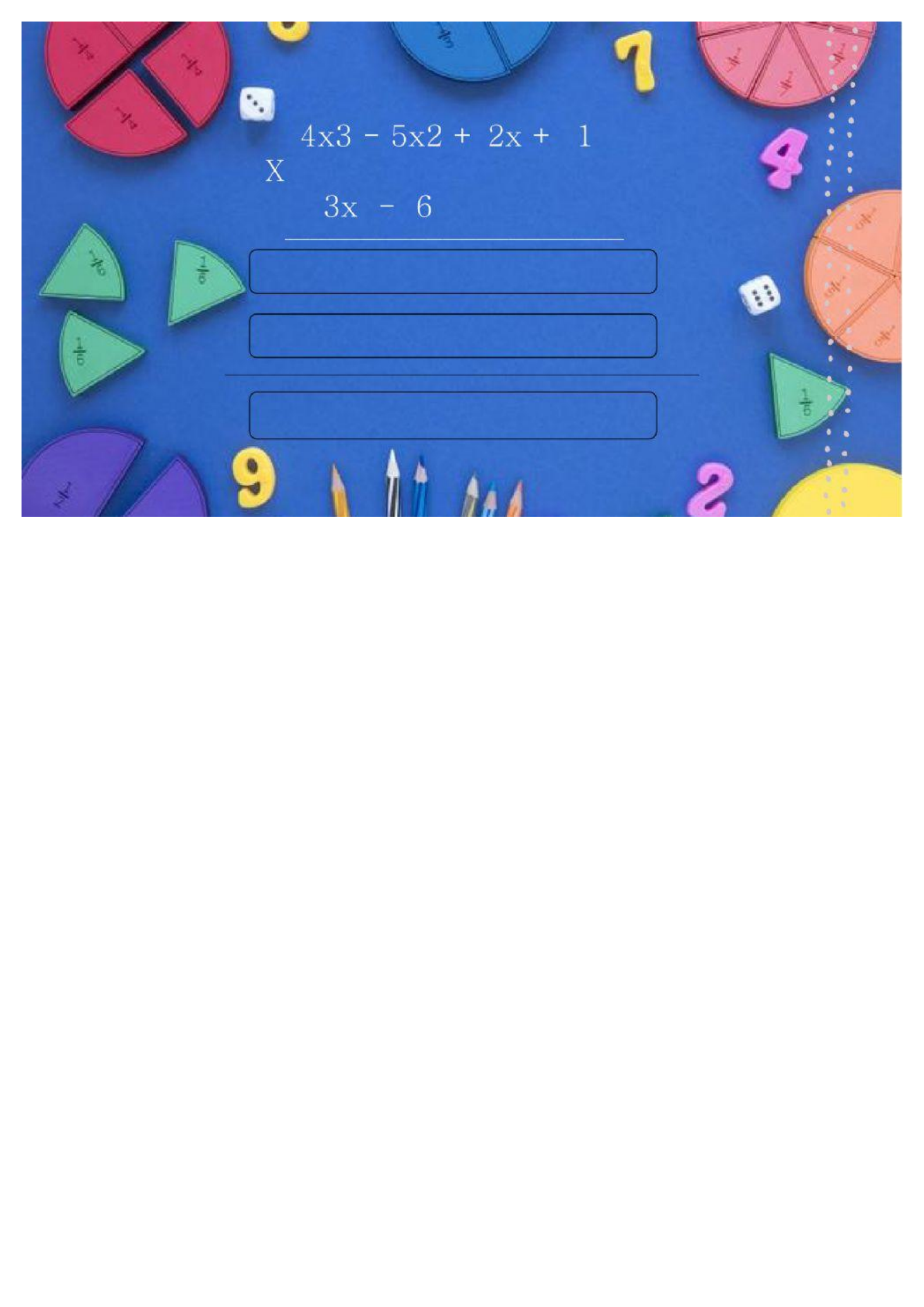
$$\begin{array}{r} -2x^6 - x^5 \qquad \qquad \qquad + 4x - 6 \\ -2x^7 - x^6 \qquad \qquad \qquad + 4x^2 - 6x \\ 6x^8 + 3x^7 \qquad \qquad \qquad -12x^3 + 18x^2 \end{array}$$

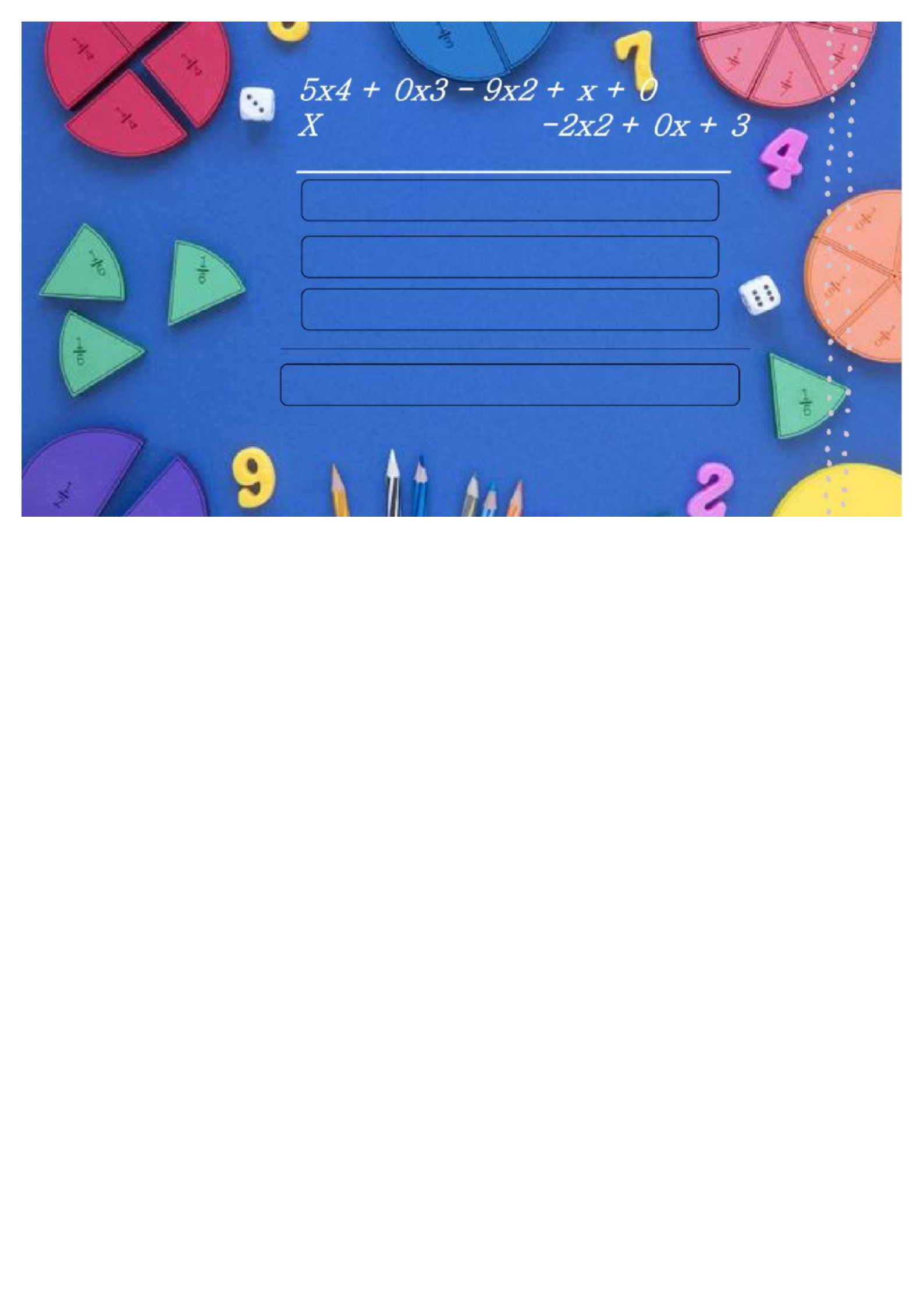
Inst. Darwin

A decorative border surrounds the central text, featuring various mathematical and educational items. At the top left are red circular sectors with the fraction 1/4. To their right is a small white die showing the number 1. Further right is a yellow number 7. At the top right is a pink circular sector with the fraction 1/4. Below the top left are green circular sectors with the fraction 1/4. To their right is a yellow number 9. At the bottom left are purple circular sectors with the fraction 1/4. To their right are several colored pencils (yellow, silver, blue, green, orange). At the bottom right is a yellow number 2. On the right side, there is a pink number 4, a small white die showing the number 6, and an orange circular sector with the fraction 1/4. A dotted line runs vertically along the right edge of the page.
$$-3x^2 + 2x^4 - 8 - x^3 + 5x$$

X

$-5x^4$

The background is a vibrant blue surface decorated with various mathematical manipulatives. In the top left, there are red circular sectors, some of which are divided into smaller parts. A small white die is visible near the top center. To the right, there are more red and orange circular sectors. On the far right, a large orange circle is partially visible, along with a green triangular sector. At the bottom, there are several colored pencils (yellow, blue, green, orange) and a yellow number '9'. On the right side, there are pink numbers '4' and '2', and a yellow number '7' at the top right. A dotted line runs vertically on the right side of the page.
$$\begin{array}{r} 4x^3 - 5x^2 + 2x + 1 \\ \times \\ 3x - 6 \\ \hline \end{array}$$



$$\begin{array}{r} 5x^4 + 0x^3 - 9x^2 + x + 0 \\ X \\ \hline \\ \\ \\ \\ \hline \end{array}$$