



INSTITUCIÓN EDUCATIVA DIVERSIFICADO DE CHIÁ

ACTIVIDAD DE MATEMÁTICAS 15

PLANO CARTESIANO CON

NÚMEROS RACIONALES

GRADO SÉPTIMO

PROFESORES: INGRID CARDOZO Y RAUL MONTAÑO



NOMBRE:

CURSO:

DESCUBRIENDO EL ARTISTA

Para descubrir el personaje debes tener en cuenta lo siguiente:

- Debes usar una hoja milimetrada tamaño carta.

EL EJE X

- Trázalo en el centímetro 14 que se tiene horizontalmente.
- Cada 3 centímetros colocas un número entero, hasta llegar al 3 o -3.
- En cada centímetro escribe un tercio, dos tercios, uno, cuatro tercios, cinco tercios...
- Cada cinco milímetros, coloca un sexto, tres sextos, cinco sextos, siete sextos, nueve sextos, once sextos, trece sextos...

EL EJE Y

- Trázalo en el centímetro 8 que se tiene verticalmente.
- Cada 4 centímetros colocas un número entero, hasta llegar al 3 o -3.
- En cada centímetro escribe un cuarto, dos cuartos, tres cuartos, uno, cinco cuartos ...
- Cada cinco milímetros escribe, un octavo, tres octavos, cinco octavos, siete octavos, nueve octavos, once octavos, trece octavos...

- Para ubicar las coordenadas debes recordar que primero va el número del eje x y luego el del eje y.
- Se van uniendo el punto anterior con el nuevo, pero si encuentras este segmento significa que no debes unir con el punto anterior.
- Después de trazar las partes coloréalas por dentro del color que corresponda.
- El último punto de cada color no puede ser unido con el primero del siguiente color.

Con las anteriores recomendaciones empieza a ubicar las siguientes coordenadas.

COLOR

COORDENADAS

**B
L
A
N
C
O**

$$\left(-\frac{1}{6}, \frac{15}{8}\right); \left(-\frac{1}{3}, 2\right); \left(-\frac{1}{3}, \frac{19}{8}\right); \left(\frac{1}{6}, \frac{17}{8}\right); \left(\frac{1}{6}, \frac{19}{8}\right); \left(-\frac{1}{3}, \frac{11}{4}\right);$$

$$\left(-\frac{2}{3}, \frac{11}{4}\right); \left(-\frac{2}{3}, \frac{15}{8}\right); \left(-\frac{1}{6}, \frac{15}{8}\right); \text{---};$$

$$\left(0, \frac{11}{4}\right); \left(\frac{3}{6}, \frac{11}{4}\right); \left(\frac{3}{6}, 2\right); \left(\frac{1}{6}, \frac{7}{4}\right); \left(-\frac{1}{6}, 2\right); \left(-\frac{1}{6}, \frac{9}{4}\right); \left(\frac{1}{6}, 2\right);$$

$$\left(\frac{1}{6}, \frac{21}{8}\right); \left(0, \frac{11}{4}\right); \text{---}; \left(-\frac{7}{6}, \frac{5}{8}\right); \left(-1, \frac{7}{8}\right); \left(-\frac{3}{6}, \frac{7}{8}\right); \left(-\frac{1}{3}, \frac{5}{8}\right);$$

$$\left(-\frac{7}{6}, \frac{5}{8}\right); \text{---}; \left(\frac{3}{6}, \frac{5}{8}\right); \left(\frac{2}{3}, \frac{7}{8}\right); \left(\frac{7}{6}, \frac{7}{8}\right); \left(\frac{4}{3}, \frac{5}{8}\right); \left(\frac{3}{6}, \frac{5}{8}\right).$$

**P
L
A
T
A**

$$\left(-\frac{5}{3}, \frac{1}{4}\right); \left(-\frac{5}{3}, \frac{3}{8}\right); \left(-\frac{11}{6}, \frac{3}{8}\right); \left(-\frac{11}{6}, \frac{1}{4}\right); \left(-\frac{5}{3}, \frac{1}{4}\right); \text{---};$$

$$\left(\frac{5}{3}, \frac{1}{4}\right); \left(\frac{5}{3}, \frac{3}{8}\right); \left(\frac{11}{6}, \frac{3}{8}\right); \left(\frac{11}{6}, \frac{1}{4}\right); \left(\frac{5}{3}, \frac{1}{4}\right); \text{---};$$

$$\left(-\frac{2}{3}, -\frac{13}{8}\right); \left(-\frac{3}{6}, -\frac{13}{8}\right); \left(-\frac{1}{3}, -\frac{15}{8}\right); \left(-\frac{1}{6}, -2\right); \left(\frac{1}{6}, -2\right);$$

$$\left(\frac{1}{3}, -\frac{15}{8}\right); \left(\frac{3}{6}, -\frac{13}{8}\right); \left(\frac{2}{3}, -\frac{13}{8}\right); \left(\frac{3}{6}, -\frac{15}{8}\right); \left(\frac{1}{6}, -\frac{17}{8}\right); \left(-\frac{1}{6}, -\frac{17}{8}\right);$$

$$\left(-\frac{3}{6}, -\frac{15}{8}\right); \left(-\frac{2}{3}, -\frac{13}{8}\right).$$

**R
O
S
A**

$$\left(-\frac{1}{3}, -\frac{3}{4}\right); \left(-\frac{1}{6}, -\frac{5}{8}\right); \left(\frac{1}{6}, -\frac{5}{8}\right); \left(\frac{1}{3}, -\frac{3}{4}\right); \left(-\frac{1}{3}, -\frac{3}{4}\right);$$

$$\left(-\frac{1}{6}, -\frac{7}{8}\right); \left(\frac{1}{6}, -\frac{7}{8}\right); \left(\frac{1}{3}, -\frac{3}{4}\right).$$

С
А
Р
Е

$$\left(-1, \frac{3}{4}\right); \left(-\frac{5}{6}, \frac{7}{8}\right); \left(-\frac{2}{3}, \frac{7}{8}\right); \left(-\frac{3}{6}, \frac{3}{4}\right); \left(-\frac{2}{3}, \frac{5}{8}\right); \left(-\frac{5}{6}, \frac{5}{8}\right);$$

$$\left(-1, \frac{3}{4}\right); \text{---}; \left(\frac{2}{3}, \frac{3}{4}\right); \left(\frac{5}{6}, \frac{7}{8}\right); \left(1, \frac{7}{8}\right); \left(\frac{7}{6}, \frac{3}{4}\right); \left(1, \frac{5}{8}\right);$$

$$\left(\frac{5}{6}, \frac{5}{8}\right); \left(\frac{2}{3}, \frac{3}{4}\right).$$

М
Е
С
О

$$\left(\frac{4}{3}, -\frac{13}{4}\right); \left(\frac{7}{6}, -\frac{19}{8}\right); \left(\frac{9}{6}, -\frac{19}{8}\right); \left(\frac{7}{6}, -\frac{7}{4}\right); \left(1, -\frac{13}{8}\right); \left(\frac{3}{6}, -\frac{13}{8}\right);$$

$$\left(\frac{1}{6}, -\frac{7}{4}\right); \left(-\frac{1}{6}, -\frac{7}{4}\right); \left(-\frac{3}{6}, -\frac{13}{8}\right); \left(-1, -\frac{13}{8}\right); \left(-\frac{7}{6}, -\frac{7}{4}\right);$$

$$\left(-\frac{9}{6}, -\frac{19}{8}\right); \left(-\frac{7}{6}, -\frac{19}{8}\right); \left(-\frac{4}{3}, -\frac{13}{4}\right); \text{---};$$

$$\left(0, -\frac{1}{4}\right); \left(0, -\frac{1}{8}\right); \left(-\frac{1}{6}, -\frac{1}{8}\right); \left(-\frac{1}{6}, -\frac{1}{4}\right); \text{---}; \left(\frac{1}{6}, -\frac{1}{4}\right); \left(\frac{1}{6}, -\frac{1}{8}\right);$$

$$\left(\frac{1}{3}, -\frac{1}{8}\right); \left(\frac{1}{3}, -\frac{1}{4}\right); \text{---}; \left(\frac{1}{6}, \frac{7}{8}\right); \left(\frac{1}{6}, \frac{9}{8}\right); \left(\frac{7}{6}, \frac{9}{8}\right); \left(\frac{4}{3}, 1\right); \left(\frac{1}{3}, 1\right); \left(\frac{1}{6}, \frac{7}{8}\right);$$

$$\text{---}; \left(-\frac{1}{6}, 1\right); \left(-\frac{1}{3}, \frac{9}{8}\right); \left(-\frac{7}{6}, \frac{9}{8}\right); \left(-\frac{4}{3}, 1\right); \left(-\frac{1}{6}, 1\right); \text{---};$$

$$\left(\frac{5}{3}, \frac{7}{8}\right); \left(\frac{11}{6}, \frac{11}{8}\right); \left(2, \frac{11}{8}\right); \left(2, \frac{6}{4}\right); \left(\frac{5}{3}, \frac{6}{4}\right); \left(\frac{9}{6}, \frac{13}{8}\right); \left(-\frac{9}{6}, \frac{13}{8}\right);$$

$$\left(-\frac{5}{3}, \frac{6}{4}\right); \left(-\frac{11}{6}, \frac{6}{4}\right); \left(-\frac{11}{6}, \frac{5}{4}\right); \left(-\frac{8}{3}, \frac{5}{4}\right); \left(-\frac{8}{3}, \frac{9}{8}\right); \left(-\frac{15}{6}, \frac{7}{8}\right); \left(-\frac{13}{6}, \frac{7}{8}\right);$$

$$(-2, 1); \left(-\frac{11}{6}, 1\right); \left(-\frac{5}{3}, \frac{7}{8}\right); \text{---}; \left(\frac{5}{3}, \frac{6}{4}\right); \left(\frac{5}{3}, \frac{11}{4}\right); \left(\frac{4}{3}, 3\right); \left(-\frac{4}{3}, 3\right);$$

$$\left(-\frac{5}{3}, \frac{11}{4}\right); \left(-\frac{5}{3}, \frac{6}{4}\right); \text{---}; \left(\frac{1}{6}, 3\right); \left(\frac{1}{6}, \frac{25}{8}\right); \left(-\frac{1}{6}, \frac{25}{8}\right); \left(-\frac{1}{6}, 3\right).$$

$$\begin{aligned}
 & \left(\frac{9}{6}, -\frac{13}{4}\right); \left(\frac{4}{3}, -\frac{19}{8}\right); \text{---}; \left(\frac{1}{6}, -\frac{7}{4}\right); \left(\frac{1}{6}, -\frac{6}{4}\right); \text{---}; \\
 & \left(-\frac{1}{6}, -\frac{7}{4}\right); \left(-\frac{1}{6}, -\frac{6}{4}\right); \text{---}; \left(-\frac{9}{6}, -\frac{13}{4}\right); \left(-\frac{4}{3}, -\frac{19}{8}\right); \text{---}; \\
 & \left(\frac{1}{3}, -\frac{5}{4}\right); \left(\frac{2}{3}, -1\right); \left(\frac{2}{3}, -\frac{5}{8}\right); \left(\frac{1}{3}, -\frac{2}{4}\right); \left(-\frac{1}{3}, -\frac{2}{4}\right); \left(-\frac{2}{3}, -\frac{5}{8}\right); \\
 & \left(-\frac{2}{3}, -1\right); \left(-\frac{1}{3}, -\frac{5}{4}\right); \left(\frac{1}{3}, -\frac{5}{4}\right) \text{---}; \left(\frac{11}{6}, \frac{1}{4}\right); \left(2, \frac{2}{4}\right); (2, 1); \\
 & \left(\frac{11}{6}, 1\right); \left(\frac{5}{3}, \frac{7}{8}\right); \text{---}; \left(\frac{5}{3}, \frac{3}{4}\right); (2, 1); \text{---}; \left(\frac{11}{6}, \frac{5}{8}\right); \left(\frac{11}{6}, \frac{2}{4}\right); \\
 & \left(-\frac{11}{6}, \frac{1}{4}\right); \left(-2, \frac{2}{4}\right); (-2, 1); \left(-\frac{5}{3}, \frac{3}{4}\right); \text{---}; \left(-\frac{11}{6}, \frac{5}{8}\right); \left(-\frac{11}{6}, \frac{2}{4}\right); \\
 & \text{---}; \left(\frac{5}{3}, \frac{1}{4}\right); \left(\frac{5}{3}, \frac{11}{8}\right); \left(-\frac{5}{3}, \frac{11}{8}\right); \left(-\frac{5}{3}, \frac{1}{4}\right); \text{---}; \\
 & \left(-\frac{3}{6}, \frac{1}{4}\right); \left(-\frac{1}{3}, \frac{2}{4}\right); \text{---}; \left(-\frac{1}{6}, \frac{1}{8}\right); \left(-\frac{1}{3}, 0\right); \left(-\frac{1}{3}, -\frac{1}{4}\right); \text{---}; \\
 & \left(\frac{1}{6}, \frac{7}{8}\right); \left(\frac{1}{6}, \frac{1}{8}\right); \left(\frac{1}{3}, 0\right); \left(\frac{1}{3}, -\frac{1}{4}\right); \text{---}; \left(\frac{2}{3}, \frac{1}{4}\right); \left(\frac{1}{3}, \frac{2}{4}\right).
 \end{aligned}$$

Р
О
Б
Б

$$\begin{aligned}
 & \left(\frac{5}{3}, \frac{1}{4}\right); \left(\frac{2}{3}, -\frac{3}{8}\right); \left(\frac{1}{3}, -\frac{1}{4}\right); \left(-\frac{1}{3}, -\frac{1}{4}\right); \left(-\frac{2}{3}, -\frac{3}{8}\right); \\
 & \left(-\frac{5}{3}, -\frac{1}{4}\right); \left(-\frac{5}{3}, -\frac{2}{4}\right); \left(-\frac{1}{3}, -\frac{6}{4}\right); \left(-\frac{3}{6}, -\frac{6}{4}\right); \left(\frac{3}{6}, -\frac{6}{4}\right); \\
 & \left(\frac{5}{3}, -\frac{2}{4}\right); \left(\frac{5}{3}, \frac{1}{4}\right).
 \end{aligned}$$

О
Б
О
С