

The background features a dark purple grid pattern. Overlaid on this are several thick, diagonal lines in various colors: yellow, orange, red, purple, green, and dark blue. The word 'MATEMÁTICA' is written in white, bold, uppercase letters, slanted to follow the path of one of the yellow lines.

MATEMÁTICA

AGORA É COM VOCÊ...

Simplifique os radicais e verifique se são semelhantes:

$$\sqrt{28} =$$

$$\sqrt{2^2 \times 7} =$$

$$\sqrt{2^2} \times \sqrt{7} =$$

$$2\sqrt{7}$$

$$\sqrt{98} =$$

$$\sqrt{2 \times 7^2} =$$

$$\sqrt{2} \times \sqrt{7^2} =$$

$$7\sqrt{2}$$

NÃO SÃO SEMELHANTES.

VALORES APROXIMADOS DE RADICAIS

Observe os números quadrados perfeitos:

$$\sqrt{0} = 0$$

$$\sqrt{16} = 4$$

$$\sqrt{1} = 1$$

$$\sqrt{25} = 5$$

$$\sqrt{4} = 2$$

$$\sqrt{36} = 6$$

$$\sqrt{9} = 3$$

$$\sqrt{49} = 7 \quad \dots$$

Como determinar?

$$\sqrt{2} = ?$$

$$\sqrt{1} < \sqrt{2} < \sqrt{4}$$

$$1 < \sqrt{2} < 2$$

$$1,3 \times 1,3 = 1,69$$

$$1,4 \times 1,4 = 1,96$$

$$1,5 \times 1,5 = 2,25$$

$$\sqrt{2} \cong 1,4$$

$$\sqrt{3} = ?$$

$$\sqrt{1} < \sqrt{3} < \sqrt{4}$$

$$1 < \sqrt{3} < 2$$

$$1,5 \times 1,5 = 2,25$$

$$1,7 \times 1,7 = 2,89$$

$$1,6 \times 1,6 = 2,56$$

$$1,8 \times 1,8 = 3,24$$

$$\sqrt{3} \cong 1,7$$

$$\sqrt{5} = ?$$

$$\sqrt{4} < \sqrt{5} < \sqrt{9}$$

$$2 < \sqrt{5} < 3$$

$$2,1 \times 2,1 = 4,41$$

$$2,2 \times 2,2 = 4,84 \left. \vphantom{2,2 \times 2,2} \right\} \leftarrow$$

$$2,3 \times 2,3 = 5,29 \left. \vphantom{2,3 \times 2,3} \right\}$$

$$\sqrt{5} \cong 2,2$$

$$\sqrt{13} = ?$$

$$\sqrt{9} < \sqrt{13} < \sqrt{16}$$

$$3 < \sqrt{13} < 4$$

$$3,5 \times 3,5 = 12,25$$

$$3,6 \times 3,6 = 12,96 \left. \vphantom{3,6 \times 3,6} \right\} \leftarrow$$

$$3,7 \times 3,7 = 13,69$$

$$\sqrt{13} \cong 3,6$$

Valor de uma expressão aproximada por décimos

$$2\sqrt{2} - 3\sqrt{3} =$$

$$\sqrt{2} \cong 1,4$$

$$2.1,4 - 3.1,7$$

$$\sqrt{3} \cong 1,7$$

$$2,8 - 5,1 =$$

$$- 2,3$$

$$\sqrt{5} + \sqrt{17} =$$

$$2,2 + 4,1 =$$

$$6,3$$

$$4 < \sqrt{17} < 5$$

$$4,1 \times 4,1 = 16,81$$

$$4,2 \times 4,2 = 17,64$$

$$\sqrt{7} \cong 4,1$$

$$\sqrt{5} \cong 2,2$$