

1ª) Find the centre and the radius in the following intervals. Draw the intervals. Express the intervals in other two ways (one of them must be using neighbourhoods.)

a) $-4 < x < 6$

b) $E(2,7)$

2ª) Find and simplify using only radical properties:

a) $\sqrt[5]{x^2} \sqrt[4]{x^3}$

b) $\frac{\sqrt[3]{a^2} \cdot (\sqrt{a^3})^3}{\sqrt[3]{a} \cdot \sqrt{a^3}} =$

3ª) Express with integer denominator, (simplify your answer):

a) $\frac{2-\sqrt{2}}{2\sqrt{7}}$

b) $\frac{5-7\sqrt{x}}{1+\sqrt{x}}$

4ª) Simplify:

$$\sqrt{20} + \frac{1}{3}\sqrt{45} + 2\sqrt{125}$$

5) a) Write this equation without logarithms: $\log D = 2 - \frac{2}{3}\log x + 4\log y$

b) Find x: $\log_3 x = 7$

c) Find x: $\log_2 \frac{1}{16} = x$

6) Find m considering that the following is an exact division:

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

7) Simplify each of the following algebraic fractions.

a) $\frac{2x^3 + 10x^2 + 16x + 8}{4x^3 + 8x^2 - 4x - 8}$

b) $\frac{x^3 - 49x}{x^4 - 7x^3}$

8) Calculate and simplify:

a) $\frac{2x}{x+1} : \left(\frac{2x}{x+1} - 1 \right)$

b) $\frac{2x+4}{x+4} - \frac{2x-14}{x-5}$

9) Solve :

$$x^4 - 61x^2 + 900 = 0$$

Pregunta	1	2	3	4	5	6	7	8	9
Puntuación	1	1,25	1,25	0,75	1	1	1,25	1,5	1
	a)0,5 b)0,5	a)0,5 b)0,75	a)0,5 b)0,75		a)0,5 b)0,25 c)0,25		a)0,5 b)0,75	a)0,75 b)0,75	