

1) Find and simplify using only radical properties:

a)  $\sqrt{2} (\sqrt[4]{2})^3 (\sqrt[3]{2})^2 =$

b)  $\frac{\sqrt[4]{a^3 b^5 c}}{\sqrt{ab^3 c^3}}$

2) Express with integer denominator, (simplify your answer):  $\frac{3\sqrt{2} + 2\sqrt{3}}{3\sqrt{2} - 2\sqrt{3}}$

3) Simplify:  $3\sqrt{8} - 5\sqrt{72} + 3\sqrt{50} - 4\sqrt{18} + 4\sqrt{2}$

4) Find  $m$  if the remainder in the following division  $(-x^5 + 3x^4 + mx^3 + 9x^2 + 2x - 7) : (x - 3)$  is  $-1$

5) Find and simplify:

a)  $\frac{x^3 - x}{2x^2 + 6x} : \frac{5x^2 - 5x}{2x + 6}$

b)  $\frac{x-1}{x^2-1} - \frac{3x^2-2}{x+1}$

6) Solve :

a)	$x^4 - 41x^2 + 400 = 0$
b)	$\sqrt{2x+3} - \sqrt{x-2} = 2$

7) Solve:

a)  $\log_5 25$

b)  $\log_3 \sqrt{27}$

c)  $2^{x-3} = 10$

d)  $5^x = 2$

8.- The length of a rectangle is five times its width. If the area of the rectangle is 245 m, find its perimeter.

9.-Solve:

$$\left. \begin{aligned} x^2 - 5y &= -1 \\ 3x + 2y &= 8 \end{aligned} \right\}$$

1	2	3	4	5	6	7	8	9
1	1	1	1	1,5	1,5	1	1	1