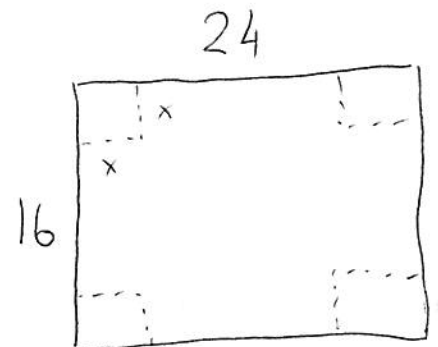


MATH 102 REVIEW #3

1. SKETCH $f(x) = \cancel{24x} x^5 + x^3 - 6x$
(FIND + CLASSIFY ROOTS)

2. A BOX IS CONSTRUCTED BY
USING A 24×16 cm PIECE
OF CARDBOARD AND CUTTING
AWAY A SQUARE WITH SIDE
 x FROM EACH CORNER, THEN
FOLDING THE SIDES UP.



- a) FIND THE VOLUME OF THIS BOX
AS A FUNCTION OF x
- b) FIND THE SURFACE AREA (~~OF~~ INSIDE ONLY)
OF THIS BOX.

3 SIMPLIFY

a) $\sqrt[3]{\frac{x^3 y^6}{27}}$

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