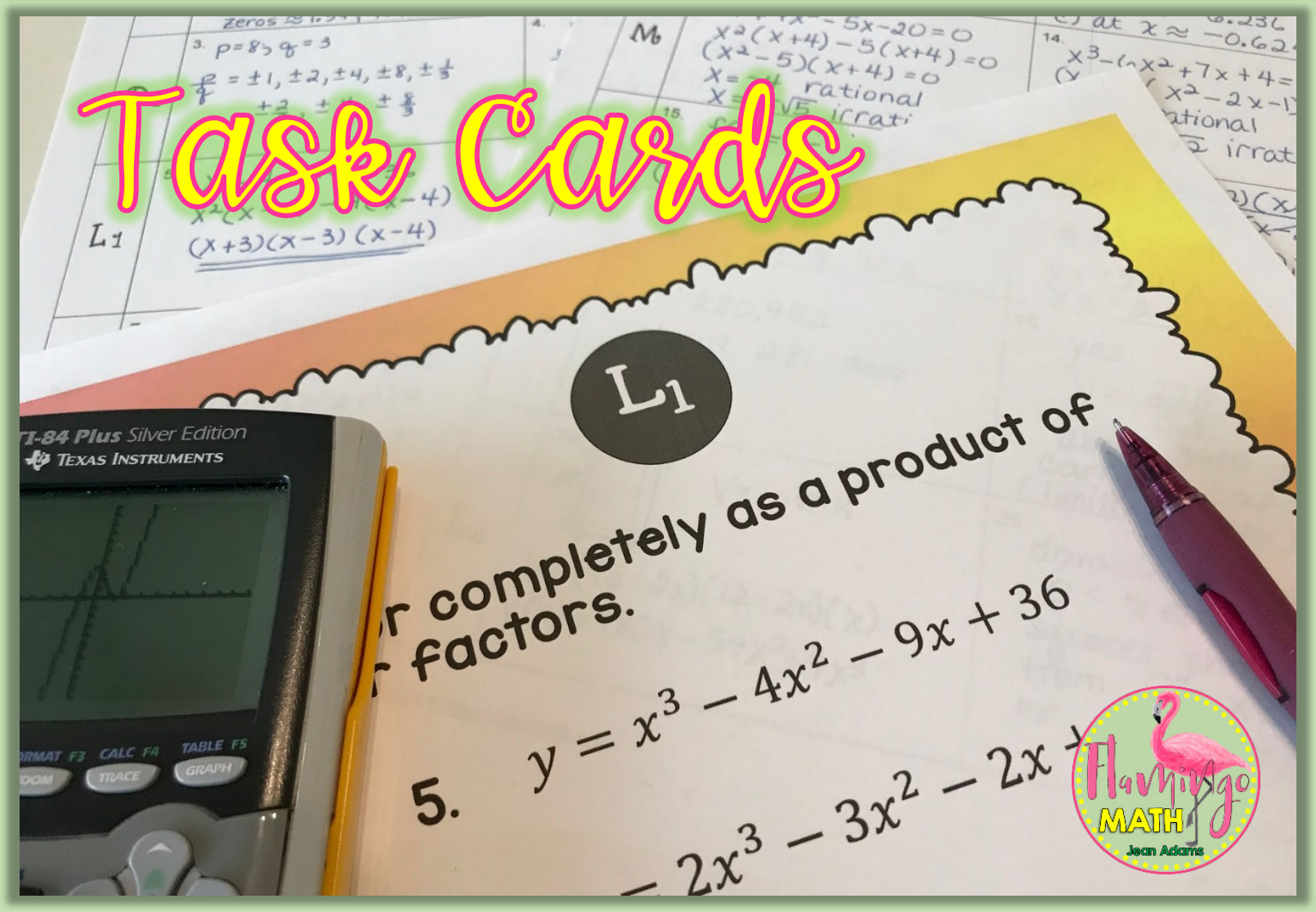
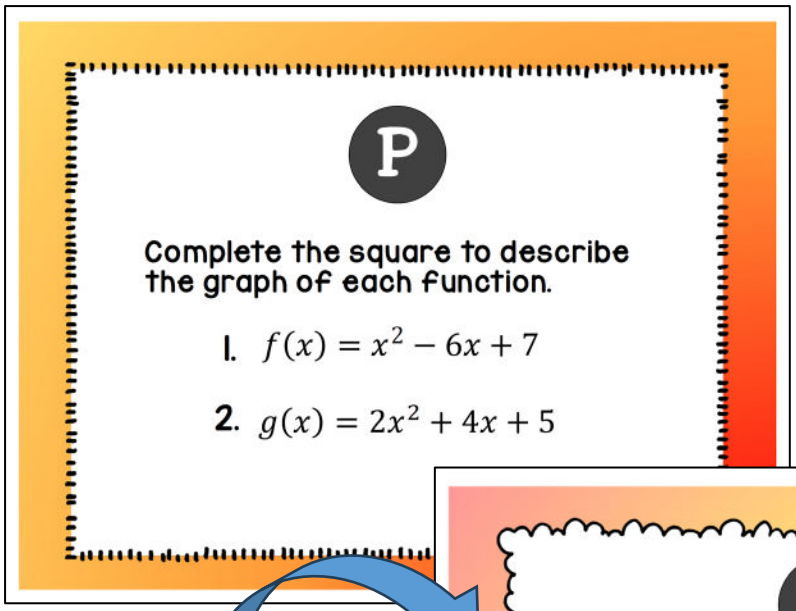
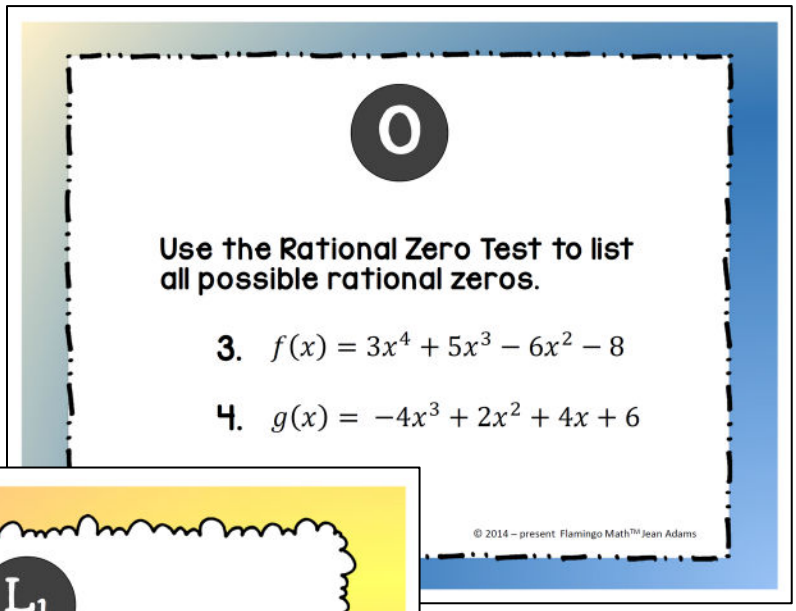
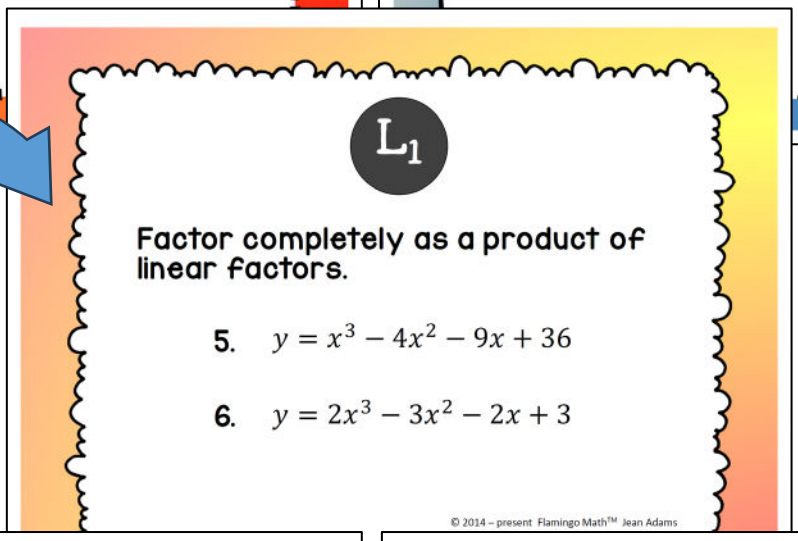
POLYNOMIAL POWER & RATIONAL FUNCTIONS

Stations Activity

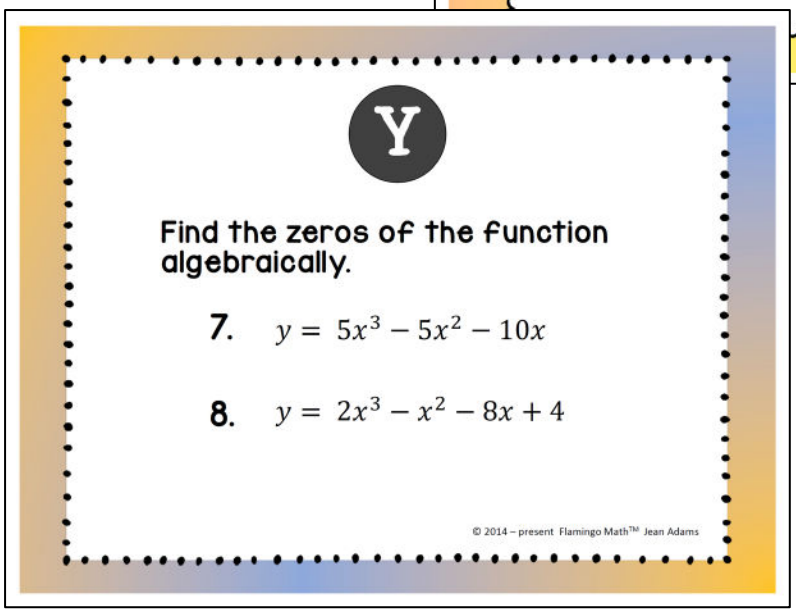


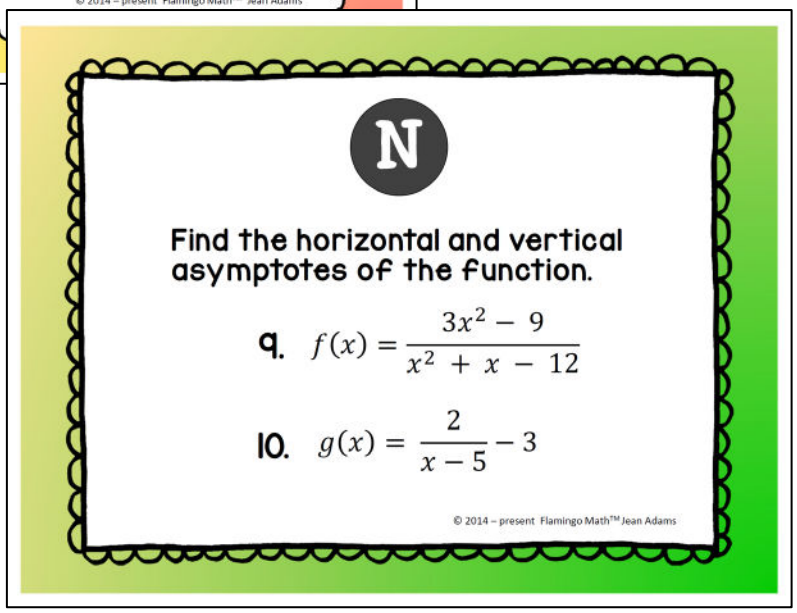






Colorful Border Full Page Cards





Different choices for cards

O_2

Use a grapher to find all (a) relative maximum values, (b) relative minimum values, (c) the value(s) of x at which each relative extremum occurs.

Answers must be accurate to three decimal places.

11. $y = x^3 - 3x^2 - 2x + 6$

12. $y = -3x^3 + 2x^2 + 6x - 4$

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M

Find all real zeros of the function. Identify each zero as rational or irrational.

13. $y = x^3 + 4x^2 - 5x - 20$

14. $y = x^3 - 6x^2 + 7x + 4$

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I

Find the asymptotes and intercepts of the function.

15. $f(x) = \frac{x+3}{x^2+3x-4}$

16. $g(x) = \frac{3x^2-4x-4}{4-x^2}$

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Black & White Version Cards

A

The number of deer at any time t (in years) in a national park is given by: $P(t) = \frac{800+275t}{10+0.8t}$

17. Find the population of deer when $t = 40$

18. Does the graph of the deer population have a horizontal asymptote? What is it? What does it mean?

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L_2

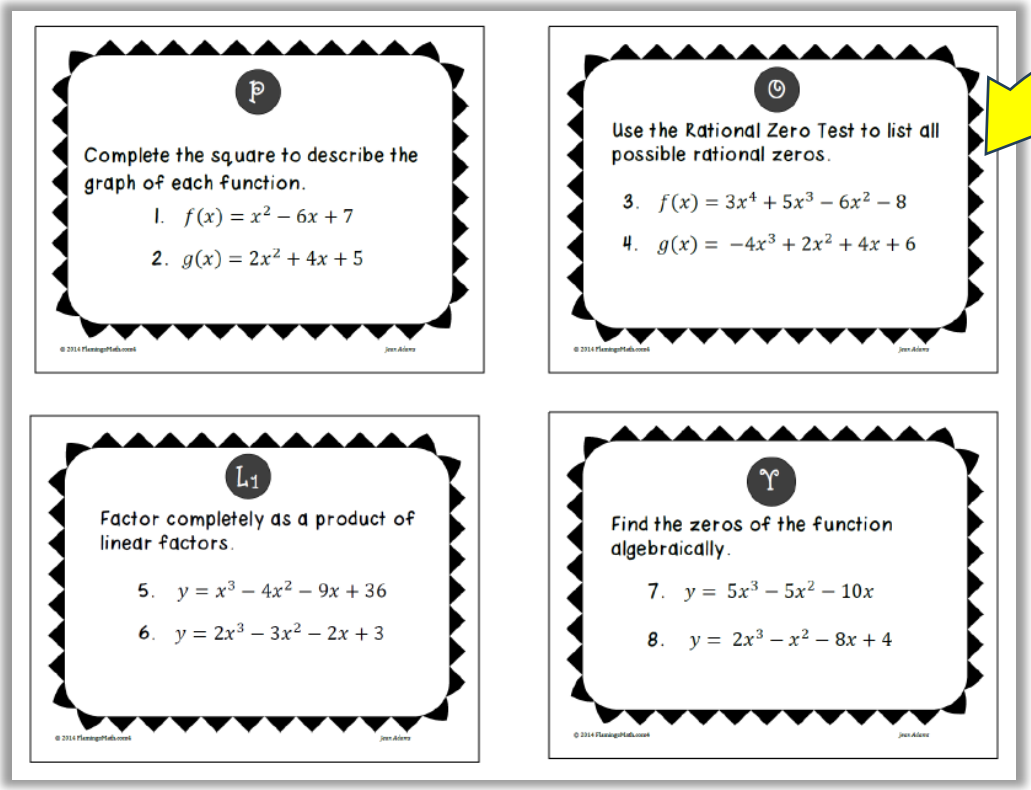
Sunshine Packing needs a 2-L cylindrical can for tomato juice ($V=2000cm^3$). The surface area S of the can as a function of the radius r (in cm) is $S(r) = 2\pi r^2 + \frac{4000}{r}$ and $h = \frac{2000}{\pi r^2}$

19. Find the dimensions of the can if the surface is less than 1000 cm^2.

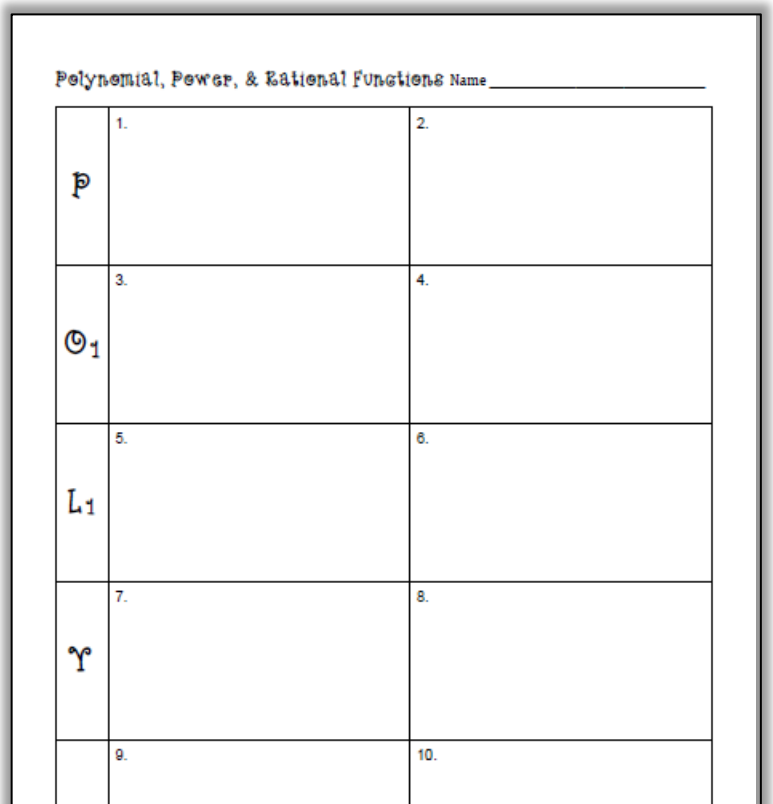
20. What is the least possible surface area of the can?

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Print these on colored cardstock

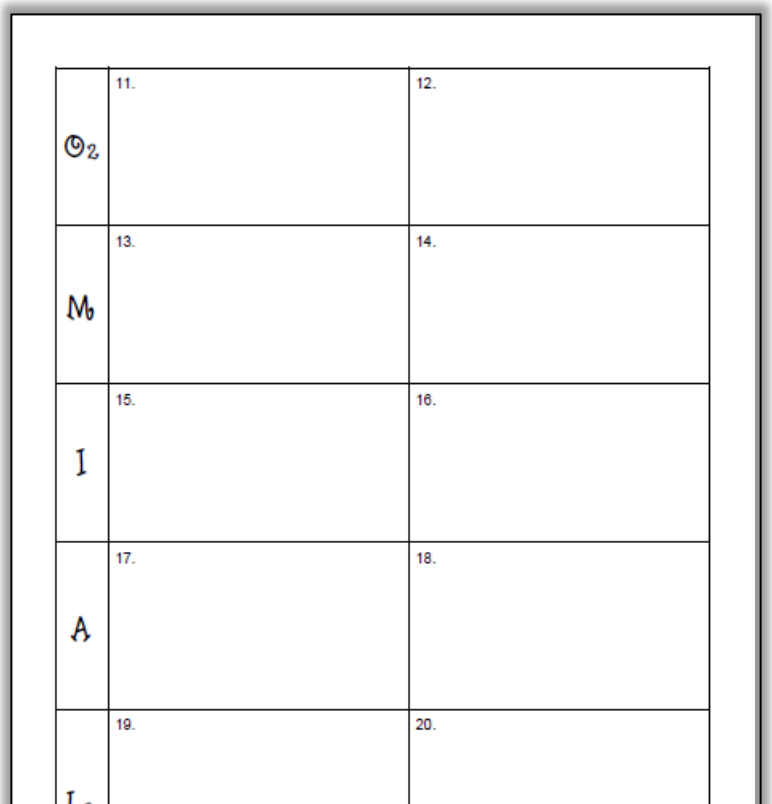


Mini-Cards will save paper!



Polynomial, Power, & Rational Functions Name _____

P	1.	2.
$\mathcal{O}_1$	3.	4.
L_1	5.	6.
Y	7.	8.
N	9.	10.



$\mathcal{O}_2$	11.	12.
M	13.	14.
I	15.	16.
A	17.	18.
L_2	19.	20.

Student Recording Sheets, too!