Math Review

The Academy SPS

Pre-Calculus

Domain	Factoring	Functions	Surprise!
100	100	100	100
200	200	200	200
300	300	300	300
400	400	400	400
500	500	500	500

This is the domain of f(x)=x^3+8.
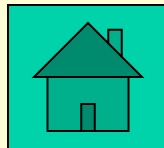
Row 1, Col 1

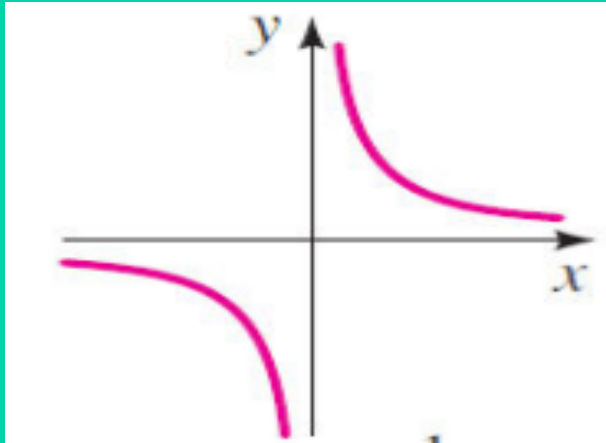**Factor g(x)=x²-81 completely.**
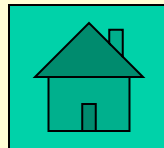
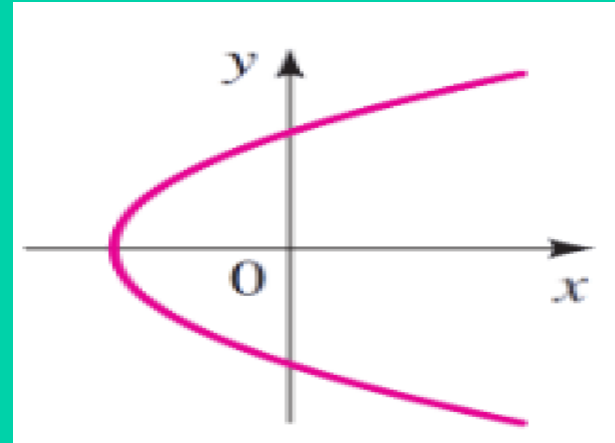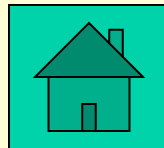# Which of the following below are graphs of functions?

A

B

1,3

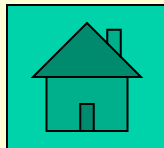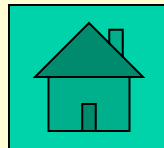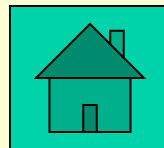**These numbers are used at the end of UPC codes, credit cards, and ISBN numbers to prevent human data entry errors.**
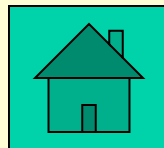
1,4

Find the domain of
f(x)=$\sqrt{x-11}$.

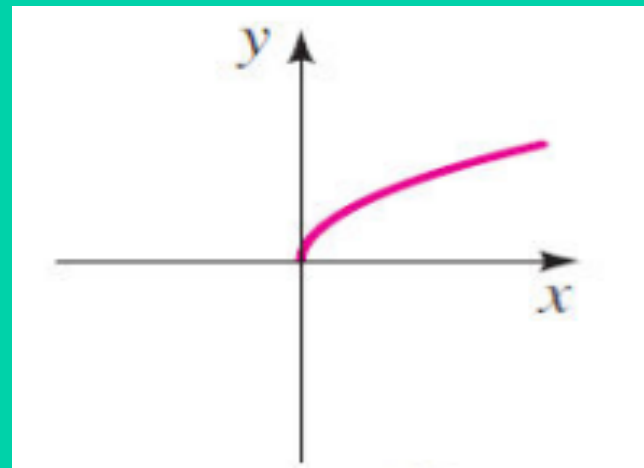2,1

Factor f(x)=121x²-144 completely.

2,2

The graphs below are sketches of what functions?

2,3
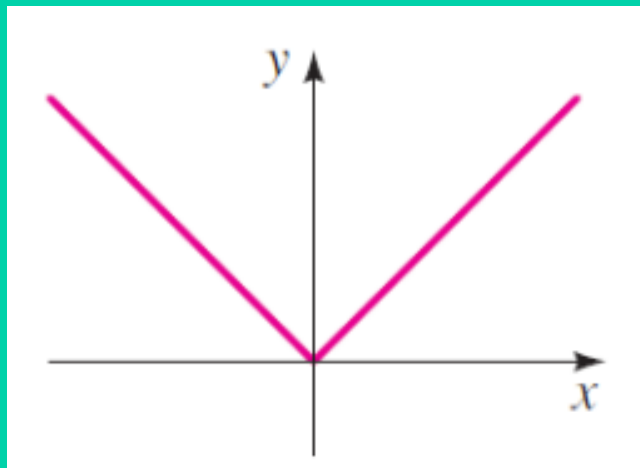
These two were the first man and first woman to receive a PhD in mathematics.

2,4
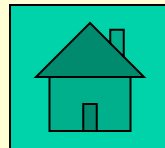
Determine the domain and range of the graph below.

3,1
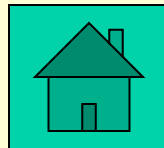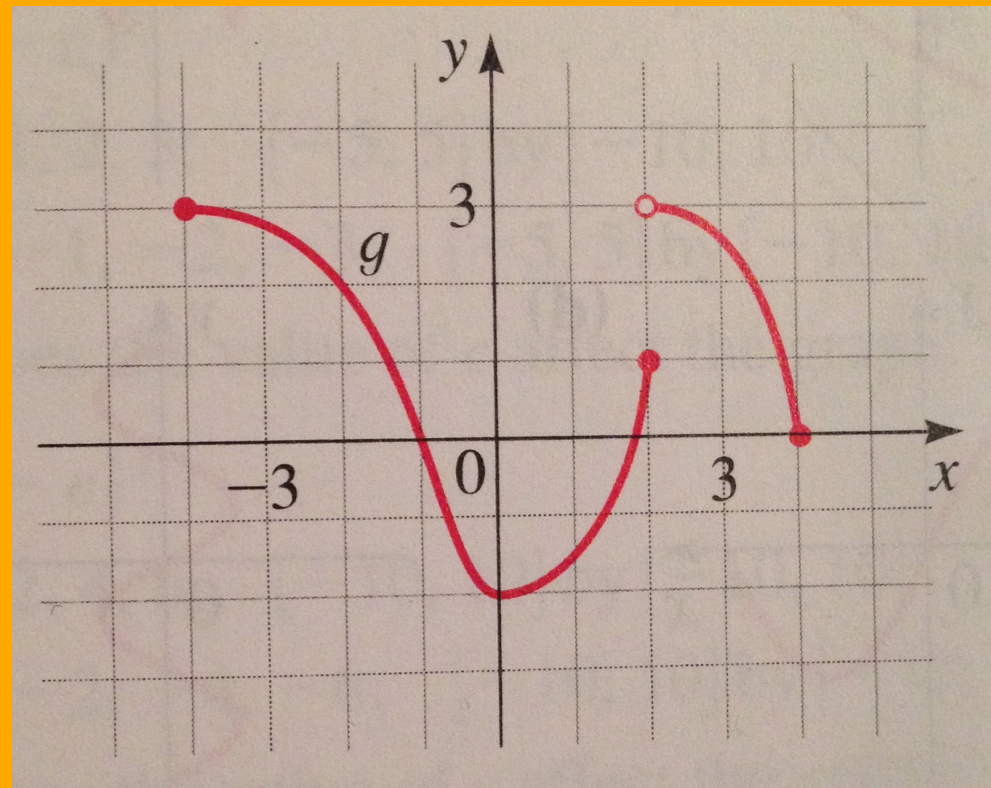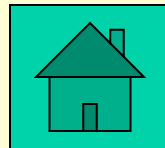
Factor 24x²y+8xy-18x-6 by Grouping.

3,2
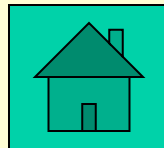
DOUBLE JEOPARDY

Sketch the graph of
f(x)=|x+1|

3,3

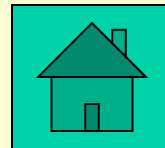**Find 38mod3.**

3,4
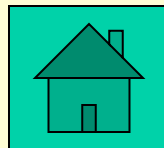
Determine the domain of ln(-4x+16).

4,1

DOUBLE JEOPARDY.

Factor x^3y^9-27 completely.
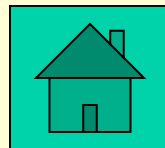
4,2

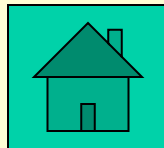# Given f(x)=x+1/x, what is f(1/2)?
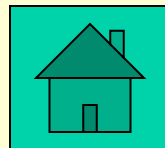
4,3
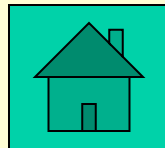
Given the following function find f(1/3), f(0), and f(3).

$$f(x) = \begin{cases} 3x & \text{if } x < 0 \\ x + 1 & \text{if } 0 \le x \le 2 \\ (x - 2)^2 & \text{if } x > 2 \end{cases}$$
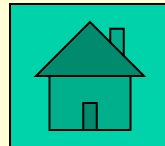
4,4

Find the domain of
f(x)=1/(x^5-x).

5,1

Use the AC Method to factor f(x)=6x²-13x-5.

5,2

Given $f(x)=2x^2-5$, find $f(x+h)$.

5,3
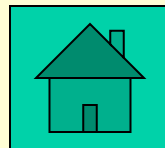
A cyclist starts her ride on a straight path, goes up a steep hill and then down a large hill until hitting another straight path. Sketch a graph that models the speed of the cyclist relative to time.

5,4