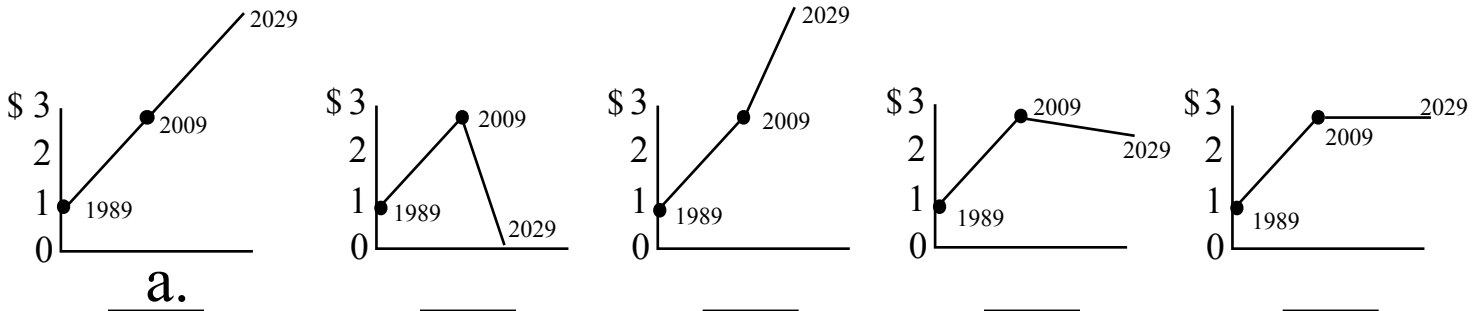


MathFLIX CHALLENGE

Interpolation & Extrapolation

Five students watching COUNTDOWN learned that during the last 20 years, gas prices increased from 97¢/gallon in 1989 to \$2.47 in 2009. Each student predicted what gas would cost 20 years from now, in 2029. Can you match each prediction with the appropriate graph?

- Susan predicted gas prices will increase at the same rate.
- Odonno predicted gas prices will increase at a more rapid rate.
- Marianna predicted that gas prices will stay the same.
- Juan predicted gas prices will decline at a very slow rate.
- Diane predicted gas prices will go to zero because no one will be using gas.



Interpolate is guessing the value of a variable **between** known values.

Extrapolate is guessing the value of a variable **beyond** those that are known.

Use interpolation to complete this table.

Year	Cost
1989	\$0.97
1994	
1999	
2004	
2009	\$2.47

What do you think the price of gas was in 1990? 1991? 1992? 1999?

Color the extrapolated values on the graph below.

Student	Prediction	Color for line
Susan	\$3.97	green
Odonno	\$5.97	red
Marianna	\$2.97	yellow
Ryan	\$1.47	blue
Beta	\$0.00	purple

What do you think the price of gas will be in 2010? 2011? 2012? 2029?

