Unit 5 Lesson 6: Analyzing Graphs

1 Fractions and Decimals (Warm up)

Student Task Statement

| fraction	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{32}$
decimal	0.5	0.25	0.125		

In the table, find as many patterns as you can. Use one or more patterns to help you complete the table. Be prepared to explain your reasoning.

2 Falling and Falling

Student Task Statement

The value of some cell phones changes exponentially after initial release. Here are graphs showing the depreciation of two phones 1, 2, and 3 years after they were released.
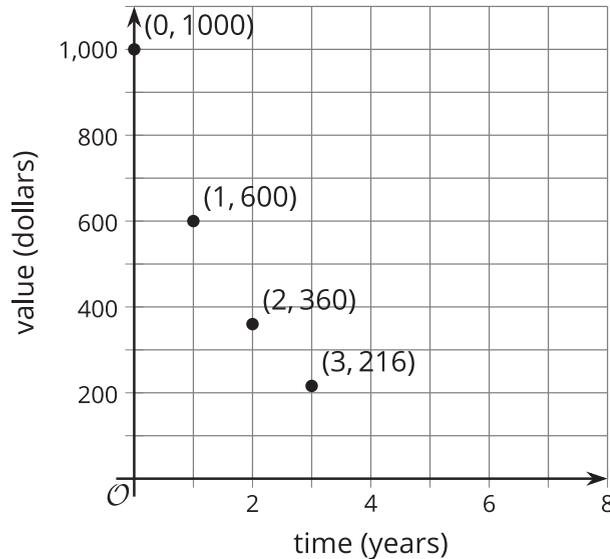
Phone A   Phone B
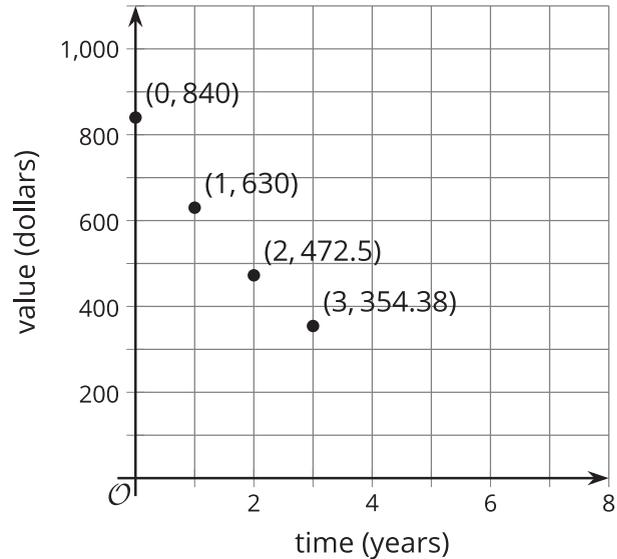
1. Which phone is more expensive to buy when it is first released?

2. How does the value of each phone change with every passing year?

3. Which one is falling in value more quickly? Explain or show how you know.

4. If the phones continue to depreciate by the same factor each year, what will the value of each phone be 4 years after its initial release?

5. For each cell phone, write an equation that relates the value of the phone in dollars to the years since release, t. Use v for the value of Phone A and w for the value of Phone B.

3 Card Sort: Matching Descriptions to Graphs

Student Task Statement

Your teacher will give you a set of cards containing descriptions of situations and graphs. Match each situation with a graph that represents it. Record your matches and be prepared to explain your reasoning.