Scene		Full Transcript
1	**Allie:**	"Diamonds are a girl's best friend." I like this one, and this one, and this one. Oh, hey! It's Allie. You guys showed up just in time. I'm at Davidson Dittmer Jewelers.
		I know, what does math have to do with diamonds and rubies?
		Well, jewelry is all about math.
	Voice-Over Allie:	Number of carats, size of rings, pricing… One of the most important things to know when you step into a jewelry store is understanding decimals.
	Allie:	So pick out something for yourself, and we'll get another *Problem Solved*.
2	**Allie:**	Take a look at this. The tag on this ring says 1.684 carats. That's the combined weight of all of the diamonds.
3	**Voice-Over Allie:**	The unit of measurement we are using is a carat. This square represents one whole carat. The large diamond is one carat and represents the one in 1.684.
		The small stones have a combined weight of 0.684 of a carat. That's over half of a carat.
		Now, the 6 in the number represents tenths. If we divided a whole carat into tenths, six of the ten would be shaded.
		The 8 represents the hundredths. If we divide each of the tenths into 10 equal parts, we have hundredths. Here are the original six tenths, and here are the eight hundredths.
		But, what about the 4? It represents thousandths. If we divide each of the hundredths by 10, we get thousandths.
		See how small that is? Just like 4000 is a lot more than one, four thousandths is a lot less than one.
4	**Voice-Over Allie:**	The jewelry business is all about being precise. They use several different tools to make sure their measurements are accurate; then they carefully record each measurement.
5	**Voice-Over Allie:**	Fractions and decimals are two ways of recording the same amount.
		The 1 represents one carat.
		The 6 represents six tenths of a carat. The 8 represents eight hundredths of a carat and the 4 represents four thousandths of a carat.

		Both fractions and decimals consist of two parts, a numerator and a denominator. However, with a decimal we only "see" the numerator because the denominator is determined by place value.
6	**Allie:**	This one really sparkles. Gemologists use microscopes to look inside stones to accurately describe the cut, color, and clarity so that they and the buyer understand all facets of the stones.
7	**Voice-Over Allie:**	Let's look at the place value chart to examine decimals. First, notice the place values can extend infinitely in both directions.
		When we compare the columns or places, ten is 10 times as large as one. One hundred is 10 times as large as 10, and 1000 is 10 times as large as 100.
		This pattern continues forever.
8	**Voice-Over Allie:**	Here's another way to show this pattern: 1000 divided by 10 equals 100, 100 divided by 10 equals 10, and 10 divided by 10 equals 1.
		The pattern continues with numbers smaller than one.
9	**Voice-Over Allie:**	One important thing to keep in mind when working with decimals is that the place value chart is symmetrical.
		But, here is where you can get tripped up. The place value chart is not symmetrical around the decimal point. Even though it might look like it, the decimal point is not the middle.
		The chart is symmetrical around the ones place; there is no "oneths" place. The tens and tenths, hundreds and hundredths, thousands and thousandths are all symmetrical around the ones place.
		Here is our number in the place value chart.
10	**Allie:**	See, models and a place value chart can help make sense of decimals.
		Decimals and diamonds can be a girl's best friend. Ring up another *Problem Solved*.

MakingSense