

What Do You Know?

Scene	Description	Narration
1	A student sits in her desk as her teacher stand at the white board. The equation $3 + 2 + 5 + 1$ is on the board.	TEACHER Do you remember how to add four one-digit numbers?
2	A line connects the 3 and the 2 to show they equal 5. Another line connects 5 and 1 to show that they equal 6. The equation $5 + 6$ appears next to the first equation, and the answer 11 shows up on the bottom.	STUDENT Yes, I remember. First I add the first two numbers. $3 + 2 = 5$. Then I add the next two numbers together. $5 + 1 = 6$. Now I add those two answers together. $5 + 6 = 11$.
3	A gold star flies in.	TEACHER Excellent! You did that perfectly!
4	The teacher and student high five each other.	TEACHER High five!
5	A new equation appears: $9 + 8 + 4 + 2$.	TEACHER Please read this problem for us. STUDENT 9 plus 8 plus 4 plus 2. TEACHER Great! How would you solve this problem?
6		STUDENT These numbers are bigger. I don't know if I remember what $9 + 8$ is.
7	Two circles appear around $9 + 8$ and $4 + 2$.	TEACHER Good point! When the numbers are larger, it won't always make sense to add the first two numbers and then the next two numbers and then add those answers together.
8	The words, "What do you know?" magically appear on the board.	TEACHER What do you know? This is the question you'll need to ask yourself before proceeding. Let me demonstrate.
9	We see the word "Hello" written in several different languages, including English.	TEACHER Which of these do you know? STUDENT I know the one that says, "Hello!"

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		<p>TEACHER</p> <p>Terrific. The others also say “Hello” but in different languages. When you see a problem with four big numbers to add, you want to start with what you know.</p>
10	The equation $9 + 8 + 4 + 2$ appears under the words “What Do You Know?” A line connects the 8 and 2 to show they equal 10.	<p>STUDENT</p> <p>Oh, I get it. I’ll start with what I know. I’m really good at what makes 10, so I know $8 + 2 = 10$.</p> <p>TEACHER</p> <p>Right!</p>
11	A line connects $9 + 4$ but there’s a question mark.	<p>STUDENT</p> <p>That leaves me with $9 + 4$. I don’t remember that fact, what should I do?</p>
12	A number line appears, and a green circle jumps from 9 to 13. The question mark turns into a 13.	<p>TEACHER</p> <p>You can use your number line.</p> <p>STUDENT</p> <p>Oh, that’s right. I’ll start at the 9 and jump four times. I landed on 13.</p>
13	The equation $13 + 10$ appears.	<p>STUDENT</p> <p>So, now I’ll add those two answers together. $13 + 10$.</p> <p>TEACHER</p> <p>Do you need a number line?</p> <p>STUDENT</p> <p>No, I can line them up as tens and ones and add them.</p>
14	A 3 appears in the ones column of the equation $13 + 10$, then a 2 shows up in the tens place. A gold star appears next to the answer, and the teacher and student do a fist bump.	<p>STUDENT</p> <p>I’ll start with the ones. $3 + 0 = 3$. Then I’ll add the tens. $1 + 1 = 2$. The answer is 23.</p> <p>TEACHER</p> <p>Excellent adding! Give me some knuckles.</p>
15	A new problem appears on the board: $7 + 7 + 8 + 9$.	<p>TEACHER</p> <p>Walk me through how you would solve this problem.</p>
16	A line appears connecting $7 + 7$ to make 14.	<p>STUDENT</p> <p>First, I’ll look for what I know. I’m really good at doubles facts so I know $7 + 7 = 14$.</p>

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		TEACHER Correct.
17	The 8 and 9 are joined by a line that ends in a number line.	STUDENT That leaves me with $8 + 9$. I'm going to use the number line for this one.
18	A green ball starts on 9 and jumps 8 spaces to land on 17. Now there's an equation $14 + 17$.	STUDENT I put my finger on the biggest number which is 9. Then I jump 8 times. $9 + 8$ equals 17.
19		STUDENT It's time to add the two answers together. I'll start with the ones. $4 + 7 = 11$.
20	The one from the tens place is carried to the top of the tens column.	STUDENT I'll write the 1 below the line and carry the other 1 over to the tens place. Now I can add up all the numbers in the tens column. $1 + 1 + 1 = 3$.
21	The answer 31 appears with a gold star.	STUDENT My answer is 31.
22		TEACHER Amazing! You followed the steps perfectly! Do you want to try one more?
23		STUDENT Yes, I know I can do it!
24	A new problem appears: $5 + 9 + 5 + 1$.	TEACHER Read this problem. STUDENT 5 plus 9 plus 5 plus 1 . This is easy! TEACHER Really? Show me how you would do it.
25	A line appears connecting the two fives. Another connects the 9 and the 1. The equation $10 + 10$ appears, and the answer 20 is shown. A gold star flies in.	STUDENT I'm really good at making 10. I know 5 and 5 make 10. And 9 and 1 make 10. $10 + 10$ is like counting by tens, 10, 20. The answer is 20.
26		TEACHER Wow! You did that quickly! You remembered the question...

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27	The words “What Do You Know” magically appear.	TEACHER What do you know?
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