

## Maths Mansion: Double Digit Dating

Scene #	Description	Narration
1	A man with a wig wearing a blazer is rubbing a golden elbow path.	It's maths! It's maths! Let's rub the magic elbow patch and see what fun is coming up today.
2	A man with glasses and a long black leather coat leads kids inside a spooky looking mansion. Different images of the mansion appear during the theme song.	<p>No more sad maths. It's bad maths time.</p> <p>(SINGING) Pay attention, it's Maths Mansion, the game show where you get to taste your maths ability. Feel the tension in Maths Mansion. Let's see how good at learning maths these kids are gonna be. If they want out, then they must earn it. There's no leaving till they learn it. The only way of getting out is mathematically.</p> <p>[EVIL CACKLE]</p>
3	The man in the long black coat is walking down the stairs of the mansion. Kids are cleaning the stairs and hall.	<p>These kids must love it here. They haven't left yet.</p> <p>Because you won't let us.</p> <p>That might have something to do with it. No leaving without learning. Oh, no. You're responsible for this, aren't you?</p> <p>No.</p> <p>Stop watching this program. Stop! You'll do your head in.</p>
4	The goofy guy with the suit and wig is talking again. He has small cartoon chickens and eggs in his wig. Zoom into his hair and you see a multiplication problem: $34 \times 23$ .	<p>When two lots of hens multiply together, you get two big eggies. It's the same with numbers. When you multiply two lots of 10 together, you get two big zeros, turning six into 600. Multiply units by tens, and you get one eggie zero, turning eight into 80. And the same when you multiply tens by units. An eggie zero turns nine into 90. Hehe!</p> <p>(SINGING) You always get two zeros when you multiply two lots of tens. And there's just one eggie zero when you multiply units and tens.</p> <p>So, watch out for the little eggies when you multiply.</p>

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5	<p>The man in the black coat is on a set of a game show. The two kids a girl and a boy are standing behind podiums on the game show stage holding remotes to answer questions. The math questions appear on a screen. The kids use the remotes to solve the math problem <math>34 \times 23</math>.</p>	<p>Watch out for little eggies? If your teacher forced you to watch that disgusting man, sue the school. Meanwhile, for a less disgusting look at multiplication, we have--</p> <p>I'm Ashley [? Horne ?] from Reading.</p> <p>I'm Amber Charles from East London.</p> <p>Right. Let's see if you can win a maths card to help you escape Maths Mansion. OK, let's take a look at the screen. Multiply 34 by 23. First of all, you?</p> <p>Estimate. If it was 30 times 20, it would be--</p> <p>Three twenties are 60, so 30 twenties would be 600.</p> <p>It's more than that. Call it 800.</p> <p>OK, multiply.</p> <p>Start with the 10s. Multiply 30.</p> <p>By 20.</p> <p>600.</p> <p>Six and two zeros.</p> <p>Now doing the four.</p> <p>Multiply by 20, eight, 80, eight and one zero.</p> <p>Multiplying 30.</p> <p>By three. That's three tens. Multiply it by three. Nine tens. 90. Multiplying the units, four times three is 12.</p> <p>[INAUDIBLE] multiplying.</p> <p>Now add them all up.</p> <p>That's two units.</p>
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6	<p>The guy in the suit in the wig is showing a screen with the chicken and bugs in his hair. The problem <math>34 \times 23</math> is on the screen. As he sings a song below the problem it shows <math>30 \times 20 = 600</math>, below that: <math>4 \times 20 = 80</math>, below that: <math>30 \times 3 = 90</math>, below that: <math>4 \times 3 = 12</math>, below that it shows the total 782.</p>	<p>You estimate, and then (SINGING) multiply the tens by tens, and write the number down. Multiply the units by tens, and write the number down. Multiply the tens by units, and write the number down. Multiply the units by units. The answer's coming soon. It's the total of the numbers that you wrote down.</p>
7	<p>The man in the black coat is on a city street, he has 4 people on the street holding up <math>36 \times 24</math>. They then reveal <math>30 \times 20</math>. Next they show <math>6 \times 20</math>. Next they show <math>30 \times 4</math>. Next they show <math>6 \times 4</math>. Finally they add up the totals for 864.</p>	<p>36 times 24. We reckon that's about 700. But let's see how the digits pair up. OK, we'll do the tens digits first. Can we lose the units, guys? Thank you.</p> <p>So, 30 times 20. Angie?</p> <p>Don't know.</p> <p>What's three times two?</p> <p>Don't know.</p> <p>I'll give you a clue. It's six. What do you think it is?</p> <p>600?</p> <p>600 is right, because you added the two zeros. Very clever. OK, now it's time for units times the tens. OK, in we come again. David, very nice. So what we're doing here is six times 20. Any ideas, David?</p> <p>No.</p> <p>Well, what's six times two?</p> <p>12.</p> <p>He's right. Add the zero. 120. Thank you, David. Absolutely right. OK, now we're going to do the tens digits again. You can have a break. And Brent, would you mind bringing in? Thank you. So what is 30 times four? Brent.</p> <p>Would that be 120?</p>

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		<p>120 it is. Again, thank you. Now, lose the tens digits all together, and it's units times the units. David, do me the honor. Six times four?</p> <p>24.</p> <p>24 is right. Thank you very much, ladies and gentlemen. A nice bit of double-digit dating.</p> <p>[MUSIC PLAYING]</p> <p>36 times 24. Let's add up the totals. In the units column, we've got a four. In the tens, a six. And in the hundreds, an eight. 864.</p>
8	Back on the set of the game show the two kids are getting ready to solve the problem $53 \times 42$ .	<p>Right. Ready for the test? Because the test is ready for you. OK, clock's ticking. What is 53 turns 42? Go.</p> <p>Estimate. It's a bit more than 50 times 40.</p> <p>2,000. 2,100.</p> <p>Doing tens. 50 times 40. 2,000.</p> <p>Units by tens. Three times 40, 12, 120.</p> <p>Tens by units. 50 times two, 10, 100.</p> <p>Doing units. Three times two, six.</p> <p>Total, six, two, two, two. 2,226.</p> <p>You did it! And with a good estimate.</p> <p>Yes!</p> <p>Which means you get a maths card to add to your collection. Eggie zeros? Ugh. Take it.</p>
9	The man in the black coat talks to the viewer and displays two multiplication problems for the viewer to solve. $98 \times 76$ and $54 \times 32$ .	<p>Could you handle double-digit multiplication? Well, let's see. Check this out. 98 times 76 and 54 times 32. Can you handle those calculations? Happy double-digit dating. I'll see you next time.</p> <p>[MUSIC PLAYING]</p>

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		<p>(SINGING) Pay attention, it's Maths Mansion, the game show where you get to test your maths ability. Feel the tension in Maths Mansion. Let's see how good at learning maths these kids are gonna be. If they want out, then they must earn it. There's no leaving till they learn it. The only way of getting out is mathematically.</p> <p>[EVIL CACKLE]</p>
10	The man in the suit and wig has two hens on his head that lay two eggs with zero on them. The eggs hatch and a dog appears.	<p>Two hens lay eggie zeros, and the eggs get together to make a hound-red. Strange.</p> <p>[EVIL CACKLE]</p>