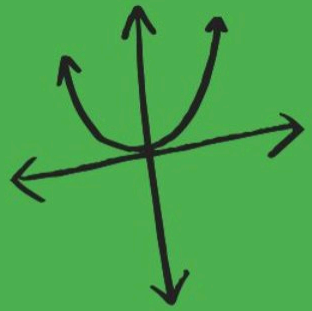
Long Division Masters

Dividing big numbers by two digits



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Today we will...



WE ARE LEARNING TO

- Divide 4-digit numbers by two-digit numbers
- Use formal long division with neat layout

SUCCESS LOOKS LIKE

✓ I can divide, multiply, subtract, bring down

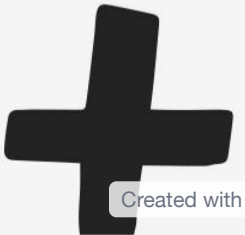
✓ I can explain any leftover correctly

$$A = \left(\frac{b_1 + b_2}{2}\right)h$$

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Our Division Loop

1. Divide front of dividend - big number inside
2. Multiply by divisor - number outside
3. Subtract to find what is left
4. Bring down next digit
5. Write quotient - answer - on top, repeat



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DID YOU KNOW?

The same four steps solve every big division.

They turn 187 ÷ 11 into 17 without guessing all at once.

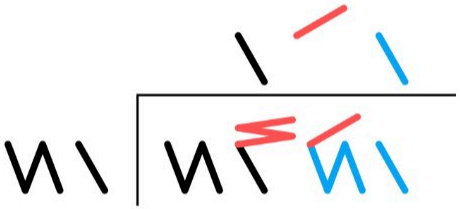
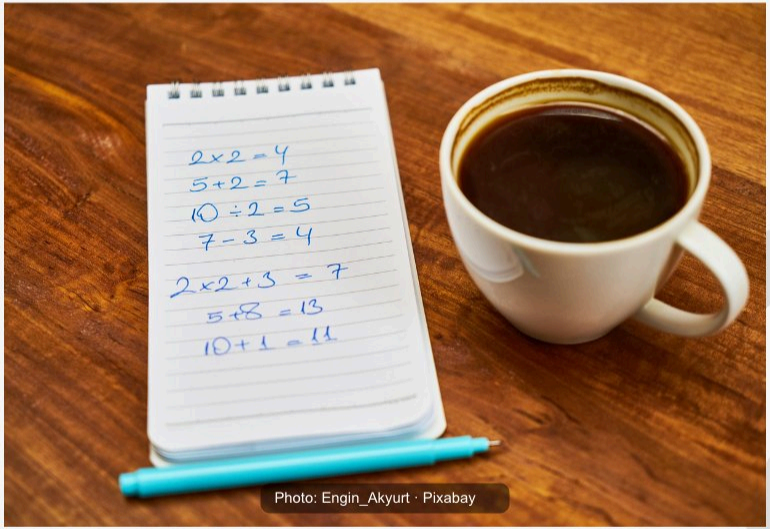


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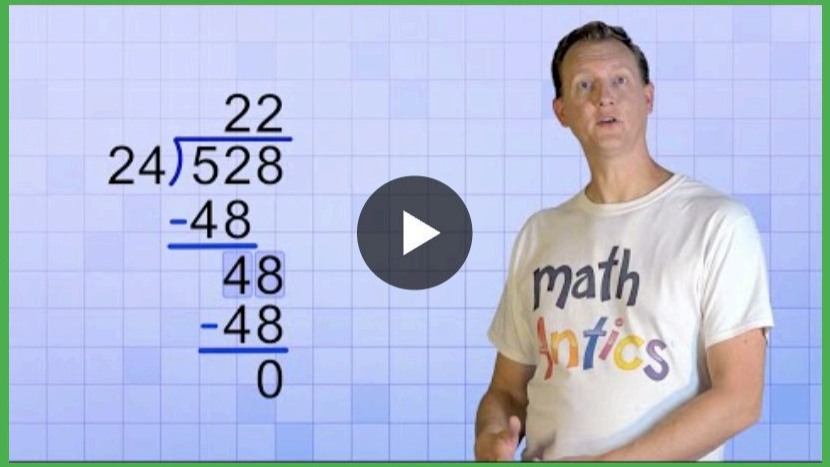
What could this be?

I share 468 into 12 equal groups with none left. What am I?



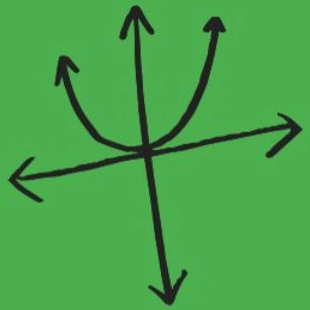
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Watch: Two-Digit Boss



▶ 0:00 – 5:00

- Spot how to split the dividend first
- See where each answer digit sits



$$A = \left(\frac{b_1 + b_2}{2}\right)h$$

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BIG IDEA

Line up digits and the method never gets lost.



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Watch Again: One Then Two Digits



▶ 5:30 – 10:30

- Compare one-digit and two-digit steps
- Listen for divide, multiply, subtract words

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Your task

In pairs, solve two 4-digit by 2-digit divisions on squared paper.

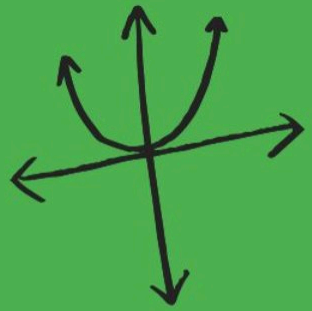
1. Write multiple list for divisor first
2. Work the loop step by step
3. Check by multiplying answer back

20 min

In pairs

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What About Leftovers?



Keep as Remainder

- Write R, like 39 R1
- Best when spare cannot be split

Change the Remainder

- Make a fraction or round up
- Best for boxes or extra seats

$$A = \left(\frac{b_1 + b_2}{2}\right)h$$

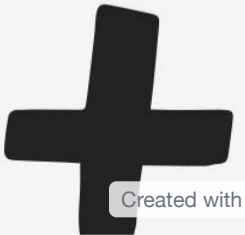
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Quick Vote

Best first helper for 2,456 ÷ 14?

- **A** Write 14, 28, 42 list first
- **B** Guess the answer then check
- **C** Start dividing straight away

Vote with your hands, then explain why.



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Exit ticket

1. One thing I learnt today...

   .....

2. One question I still have...

   .....

3. My answer to 936 ÷ 12 is...

   .....

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