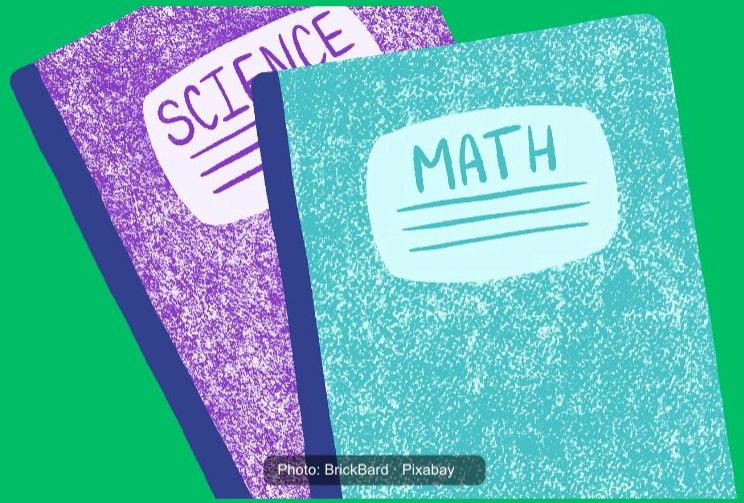
Divide Like a Pro

Fluently using long division in Grade 6

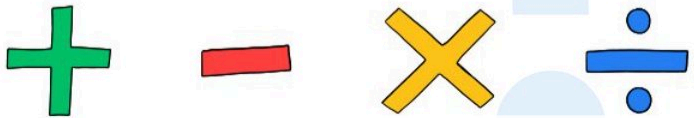


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What could this be?

You see this frame with a 3-digit number inside. What does each number do?



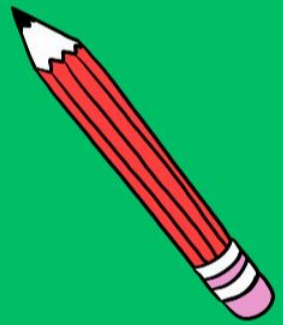


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$a^2+b^2=c^2$

DID YOU KNOW?

Long division is the same small step on repeat.



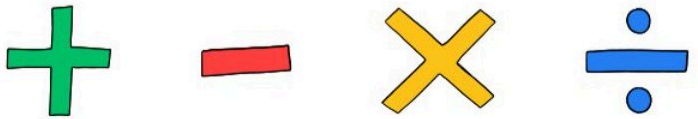
Divide, multiply, subtract, bring down, then repeat until no digits are left.

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Long Division Map

Long Division

- Dividend: number to split
- Quotient: answer on top
- Estimate first
- Divisor: number you divide by
- Remainder: amount left over
- Check by multiplying



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$a^2+b^2=c^2$

Think, pair, share

Three friends share $144.00 equally. How do you set up 144 ÷ 3?



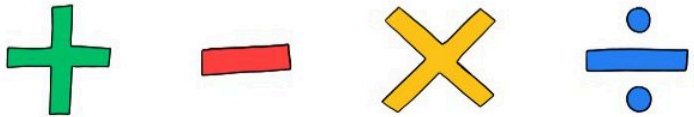
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Watch: Steps in Action



▶ 0:00 – 4:30

- Spot where to divide first
- Hear multiply, subtract, bring down
- See neat lineup of numbers



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$a^2+b^2=c^2$

Four Moves on Repeat

÷

Divide

Find how many groups of the divisor fit.

×

Multiply

Multiply that digit by the divisor.

−

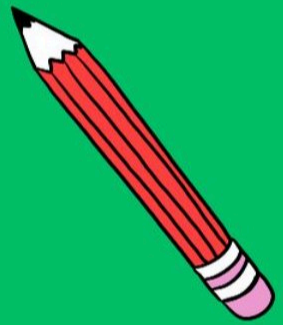
Subtract

Subtract to see what is left.

⬇️

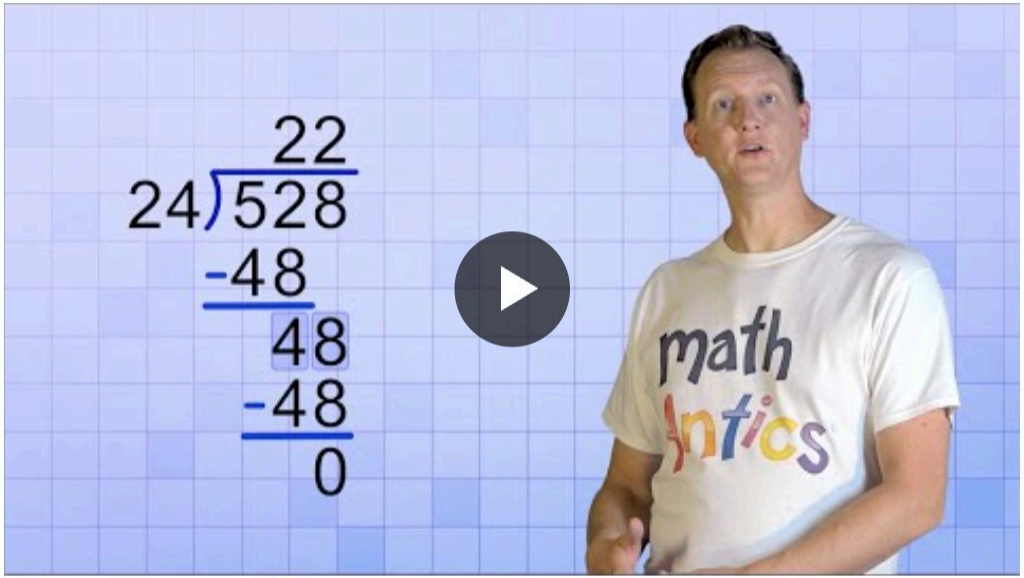
Bring Down

Bring down the next digit and repeat.



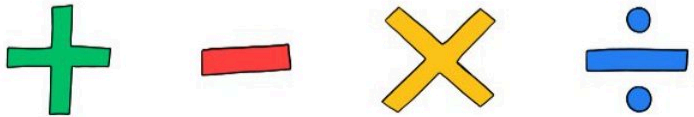
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Watch: Two-Digit Divisors



▶ 0:00 – 5:00

- List easy multiples to choose digits
- Estimate before you divide
- Check subtraction and place value



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$a^2+b^2=c^2$

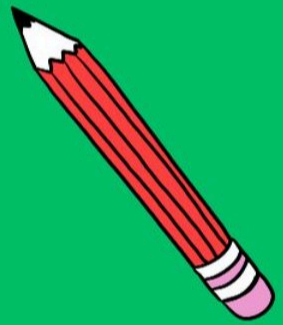
Your task

Solve fluently: 576 ÷ 12, 432 ÷ 12, and 918 ÷ 17. Show the standard algorithm.

1. 1. Estimate first and list helpful multiples.
2. 2. Divide, multiply, subtract, bring down.
3. 3. Check by multiplying quotient x divisor.

10 min

In pairs



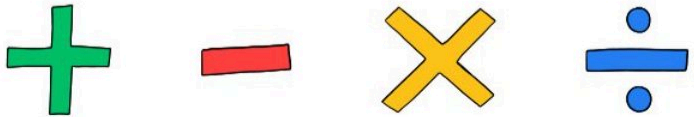
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DID YOU KNOW?

Every division can be checked in seconds.

Quotient x divisor + remainder = dividend, so 48 x 12 = 576 proves it.

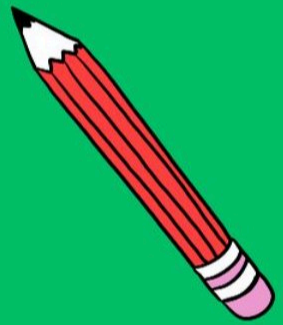




$a^2+b^2=c^2$

What Helps Most?

Which habit makes you fastest and most accurate?



- **A** Knowing multiplication facts cold
- **B** Estimating the answer first
- **C** Keeping subtraction work neat
- **D** Always checking at the end

Vote with your hands, then explain why.

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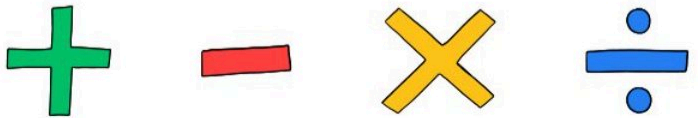
True or false?

In 672 ÷ 12, 672 is the dividend.

Long division stops after one subtract step.

If remainder is 0, quotient x divisor equals dividend.

You can write the first quotient digit anywhere on top.



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