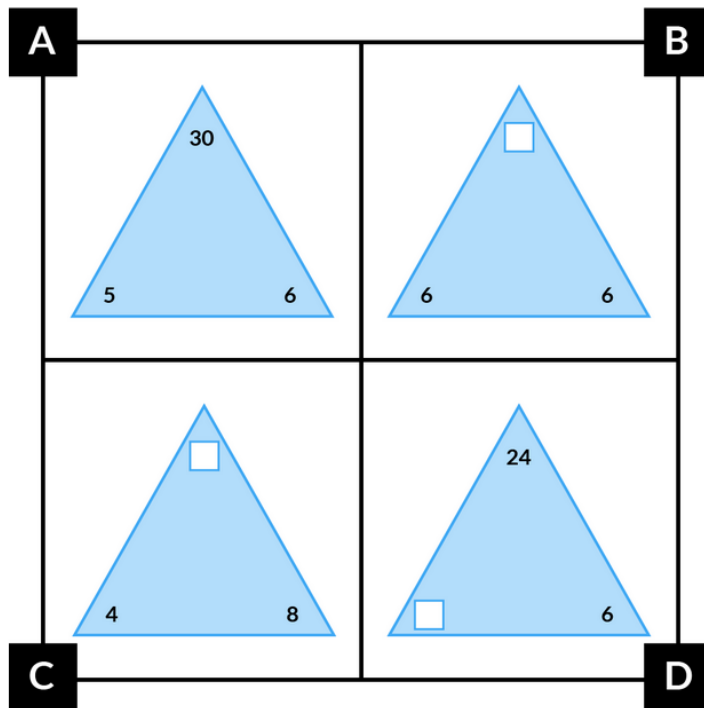


January Math Newsletter

Grades 4-6

Take time with your family to
talk and reason about math.

Look at the set of four pictures. Decide which one doesn't belong with the other three. Describe your thinking using math words. There are many ways to think about each one!



Challenge

Find reasons why *each* of the pictures might not belong with the other three.

Share

Explain your thinking to someone. Do they have different reasons one doesn't belong?

Would you rather shovel ...



Use pictures, models, words, numbers, or symbols to justify your choice.

I would rather shovel ... because ...

Challenge

If you were paid \$15 for each driveway you shoveled, would that change your answer?

Follow-Up

Create your own problem like this one. Share it with someone and ask them to explain their choice.

Flip over to see if your thinking matched
ours **AND** to get links to interactive math
games to play with your family at home.

Possible thinking/reasoning for the activities on the front

Some things you might hear from learners:

- A doesn't belong because it's the only that doesn't have an unknown number.
- B doesn't belong because it's the only one that has two of the same numbers; both factors are the same.
- C doesn't belong because it's the only one that doesn't have a factor of 6.
- D doesn't belong because it's the only one with an unknown factor. The rest show both factors at the base of the triangle. It is also the only one with a product or dividend that doesn't have a 3 in the tens place. The other products or dividends are 30, 36, and 32.

Interactive Math Games

Type the URL into your computer, tablet or phone to play.

Factors and Multiples

<https://student-activities.mathlearningcenter.org/?46cf7456>

Draw and Compare Decimals

<https://student-activities.mathlearningcenter.org/?7818e42b>

Use pictures, models, words, numbers, or symbols to justify your choice.

One Driveway

(8 feet wide, 30 feet long, snow is 2 feet deep)

I thought of the snow in 2 layers, each 1 foot deep.

Each layer is 8 feet wide and 30 feet long, so the first layer is:

$8 \text{ feet} \times 30 \text{ feet} \times 1 \text{ foot} = 240 \text{ cubic feet.}$

One more layer on top of that =

480 cubic feet of snow

Four Driveways

(Each 15 feet wide, 25 feet long, snow is 1 foot deep)

Each driveway will have the same amount of snow.

$15 \text{ feet} \times 25 \text{ feet} \times 1 \text{ foot} = 375 \text{ cubic feet}$

Each of the kids shoveling will shovel a total of 1 whole driveway, and then $\frac{1}{2}$ of another driveway.

$\frac{1}{2}$ of 375 cubic feet = $(\frac{1}{2}$ of 300) + $(\frac{1}{2}$ of 75)
= $100 + 25$
= 125 cubic feet

So the total amount each kid will shovel is:

$375 \text{ cubic feet (one driveway)} + 125 \text{ cubic feet } (\frac{1}{2} \text{ of a driveway}) =$

500 cubic feet of snow

I would rather shovel ... because ...

Students might say:

I would rather shovel the one driveway. I would have less snow to shovel (480 cubic feet vs. 500 cubic feet) and it would take less time to shovel the snow. With the extra time, I could get together with my friends and do something more fun than shoveling snow.

Or they might say:

I would rather shovel four driveways with my friends. The amount of snow I'd have to shovel is only a little bit more than shoveling one driveway by myself, and I'd get to hang out with my friends. Plus, we'd be helping each other and helping our neighbors whose driveways we'd be shoveling, and I like to help people out.

Challenge

If you were paid \$15 for each driveway you shoveled, would that change your answer?

If we got paid, I would rather shovel 4 driveways. Fifteen dollars times 4 driveways is a total of \$60. If my friends and I shared that, we'd each get \$20, as opposed to \$15 for the one driveway. I'm trying to save money, and this would help.

