

Day 1

Practice (Source: <https://openupresources.org/math-curriculum/>)

Select **all** the true equations.

A. $5 + 0 = 0$

B. $15 \cdot 0 = 0$

C. $1.4 + 2.7 = 4.1$

D. $\frac{2}{5} \cdot \frac{5}{9} = \frac{7}{12}$

E. $4\frac{2}{3} = 5 - \frac{1}{3}$

Equivalent Ratios (Source: <https://www.openmiddle.com/>)

Using each of the digits 0-6 only once, make two equivalent ratios (also known as a proportion).

$$\frac{\square}{\square \square} = \frac{\square \square}{\square \square}$$

Eightfold (Source: <https://playwithyourmath.com/>)

Try this challenge!



Fold this paper so that

1 is on top of 2,

2 is on top of 3,

3 is on top of 4, ...

Numbers can
 be upside down
 or backwards.



Day 2

Expression (Source: <https://openupresources.org/math-curriculum/>)

Mai's water bottle had 24 ounces in it. After she drank x ounces of water, there were 10 ounces left. Select all the equations that represent this situation.

A. $24 \div 10 = x$

B. $24 + 10 = x$

C. $24 - 10 = x$

D. $x + 10 = 24$

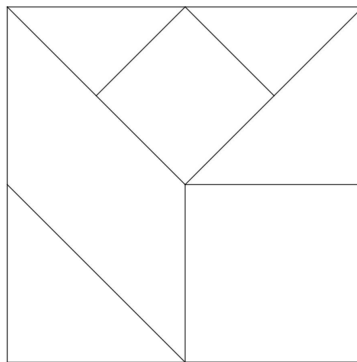
E. $10x = 24$

Odd Pig Out Game (Source: mathforlove.org)

Roll two dice and multiply them. You can keep rolling as long as the product is even. If the product is odd, you lose all unbanked points for that turn, and pass the dice. Play to 500.

Fraction Talk (Source: <http://fractiontalks.com/>)

Shade in one of the regions in this square. What fraction of the big square did you shade? Explain.

**Day 3**

Decimal Addition (Source: <https://www.openmiddle.com/>)

Use the digits, 0 through 9, without repeats, to complete the equation below:

$$\begin{array}{r}
 \square \square . \square \\
 + \square \square . \square \\
 \hline
 \square \square . \square
 \end{array}$$

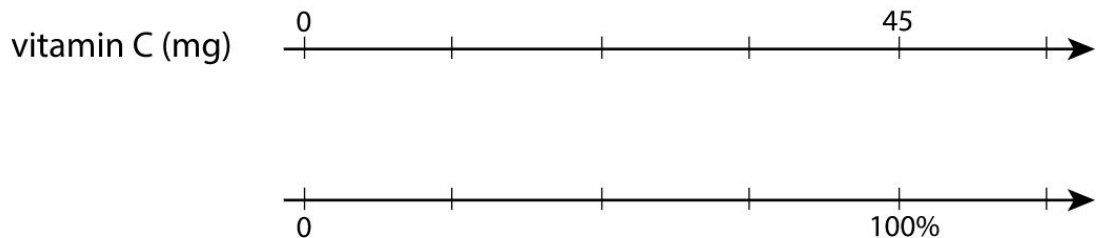
Which One Doesn't Belong? (Source: wodb.ca)

Choose a number in this picture that you don't think belongs with the rest. Explain why. Can you pick another number and give a different reason?



Word Problem (Source: <https://openupresources.org/math-curriculum/>)

The daily recommended allowance of vitamin C for a sixth grader is 45 mg. 1 orange has about 75% of the recommended daily allowance of vitamin C. How many milligrams are in 1 orange? If you get stuck, consider using the double number line.



Day 4

Percent Problems (Source: <https://openupresources.org/math-curriculum/>)

There are 90 kids in the band. 20% of the kids own their own instruments, and the rest rent them.

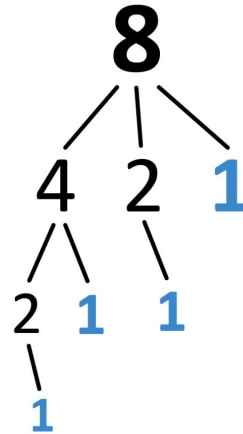
- How many kids own their own instruments?
- How many kids rent instruments?
- What percentage of kids rent their instruments?

One Big Factor Family (Source: <https://playwithyourmath.com/>)

Imagine that each number has a family.

- Its children are its factors that are not equal to itself.
- Some numbers have grandchildren...
- ... and great-grandchildren
- There are four 1s in the 8's family

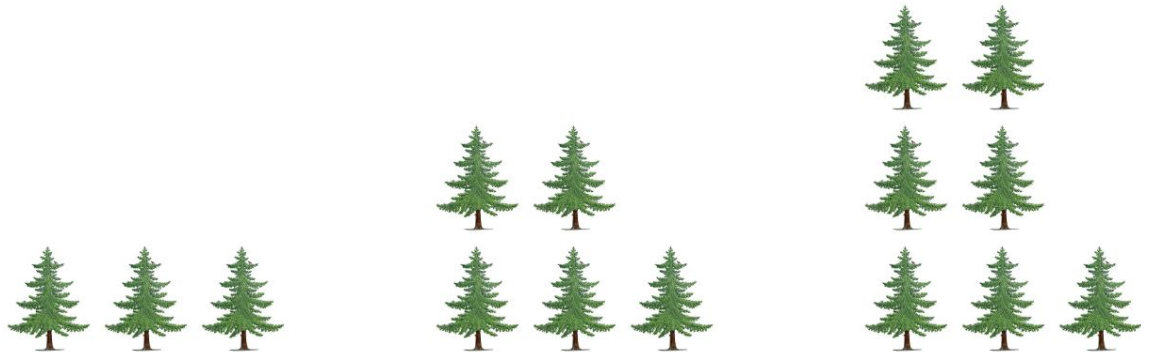
How many 1s are in the 72's family?



Visual Pattern (Source: visualpatterns.org)

Below is a pattern of trees in stages 1-3 below.

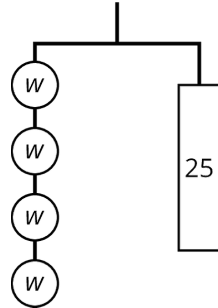
- A. Draw what you think stage 4 might look like.
- B. Draw or describe what you think stage 10 might look like.
- C. Label how many trees are in each stage.
- D. Try to write an expression to describe the relationship between the stage number n and the number of trees T .



Day 5

Balance (Source: <https://openupresources.org/math-curriculum/>)

Here is a balanced hanger.

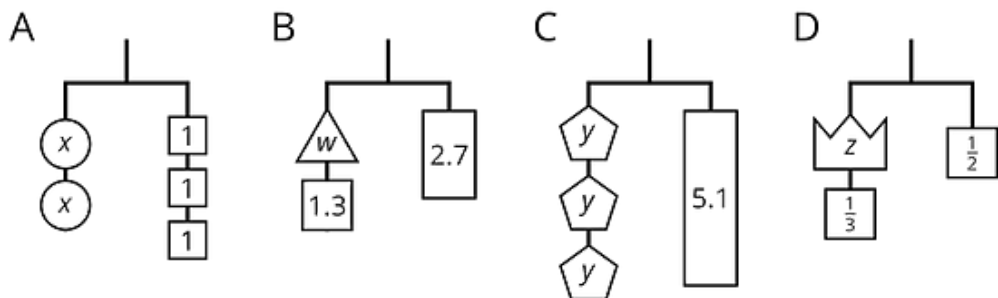


A. Write an equation representing this hanger.

B. Find the weight of one circle. Show or explain how you found it.

Writing Equations (Source: <https://openupresources.org/math-curriculum/>)

Write an equation to represent each hanger.



Would You Rather (Source: <https://www.wouldyourathermath.com/>)

Whichever option you choose, justify your reasoning with mathematics.

Work as a server at Restaurant A
OR
Work as a server at Restaurant B?

Restaurant A	Restaurant B
\$18 per hour No tipping allowed	\$10.50 per hour Tipping encouraged
(meals range from \$8 to \$25 each)	(meals range from \$8 to \$25 each)

wouldyourathermath.com