

MATH SKETCH NOTES

MATH SKETCH NOTES

These 4th-grade math sketch notes (AKA doodle pages) are a powerful learning and teaching tool. They cover essential math concepts and procedures for students in a visually appealing way. You can use this resource to supplement any math curriculum, and they are perfect for previewing/pre-teaching or reviewing/reinforcing.

These sketch pages are like mini anchor charts that your students actively create and can be referred to in the future.

WHAT'S INCLUDED:

- Blank student note page
(two sizes: 8.5 x 11 & composition notebook size for INBs)
- Detailed answer key
- Step-by-step PowerPoint

GUIDED NOTE-TAKING

Guiding your students through the note-taking process is so easy and requires almost zero preparation!

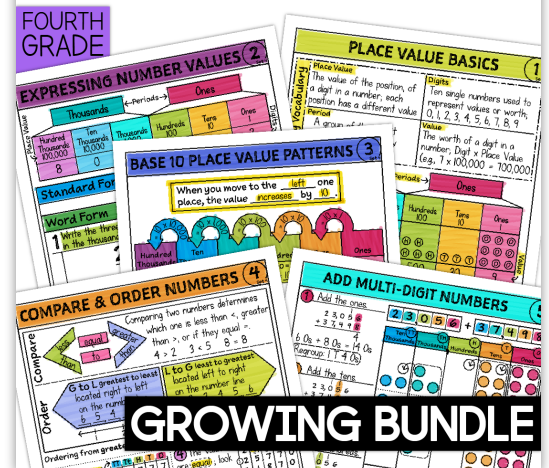
1. PowerPoint: Each sketch note page comes with a step-by-step PowerPoint that you can use to guide your students as they complete their notes.
2. Document Camera: Use a document camera to project a blank copy of the notes. Use the answer key provided to complete the note page in front of your students.

WHY SKETCH?

Sketch notes present your students with a meaningful and engaging activity they will love. Doodle note-taking activates verbal and visual modalities to capture concepts. The whole brain is absorbed in hearing, synthesizing, and retaining ideas. This high level of engagement helps students retain the content and leaves little room for distraction.

GET THE BUNDLE!!!

MATH SKETCH NOTES

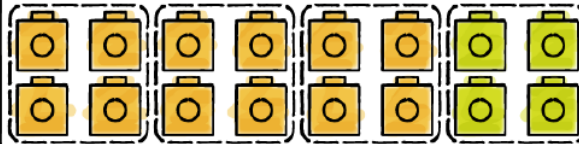


MATH SKETCH NOTES

FRACTION OF A SET

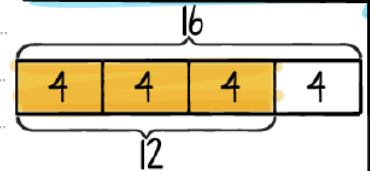
45
Set 4

- 1 There are 16 cubes in a set.
- 2 The set is divided into 4 equal groups.
- 3 3 out of the 4 groups are orange.
"of" means multiply
- 4 12 out of the 16 cubes are orange.



- What is $\frac{3}{4}$ of 16?
- 1 4 units $\rightarrow 16$
 - 2 1 unit $\rightarrow 16 \div 4 = 4$
 - 3 3 units $\rightarrow 3 \times 4 = 12$
 - 4 $\frac{3}{4}$ of 16 = 12

Create a Bar Model



Standard Algorithm

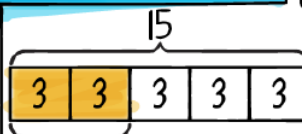
- 1 Divide the whole number by the denominator:
- 2 Multiply the quotient by the numerator:

$$\frac{3}{4} \times 16$$

$$16 \div 4 = 4$$

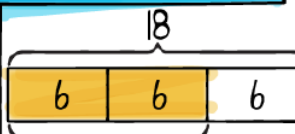
$$4 \times 3 = 12$$

What is $\frac{2}{5}$ of 15?



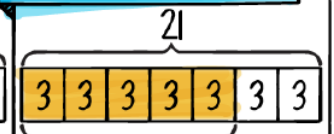
$$\begin{aligned} 5 \text{ units} &\rightarrow 15 \\ 1 \text{ unit} &\rightarrow 15 \div 5 = 3 \\ 2 \text{ units} &\rightarrow 2 \times 3 = 6 \\ \frac{2}{5} \text{ of } 15 &= 6 \end{aligned}$$

What is $\frac{2}{3} \times 18$?



$$\begin{aligned} 3 \text{ units} &\rightarrow 18 \\ 1 \text{ unit} &\rightarrow 18 \div 3 = 6 \\ 2 \text{ units} &\rightarrow 2 \times 6 = 12 \\ \frac{2}{3} \text{ of } 18 &= 12 \end{aligned}$$

What is $\frac{5}{7}$ of 21?

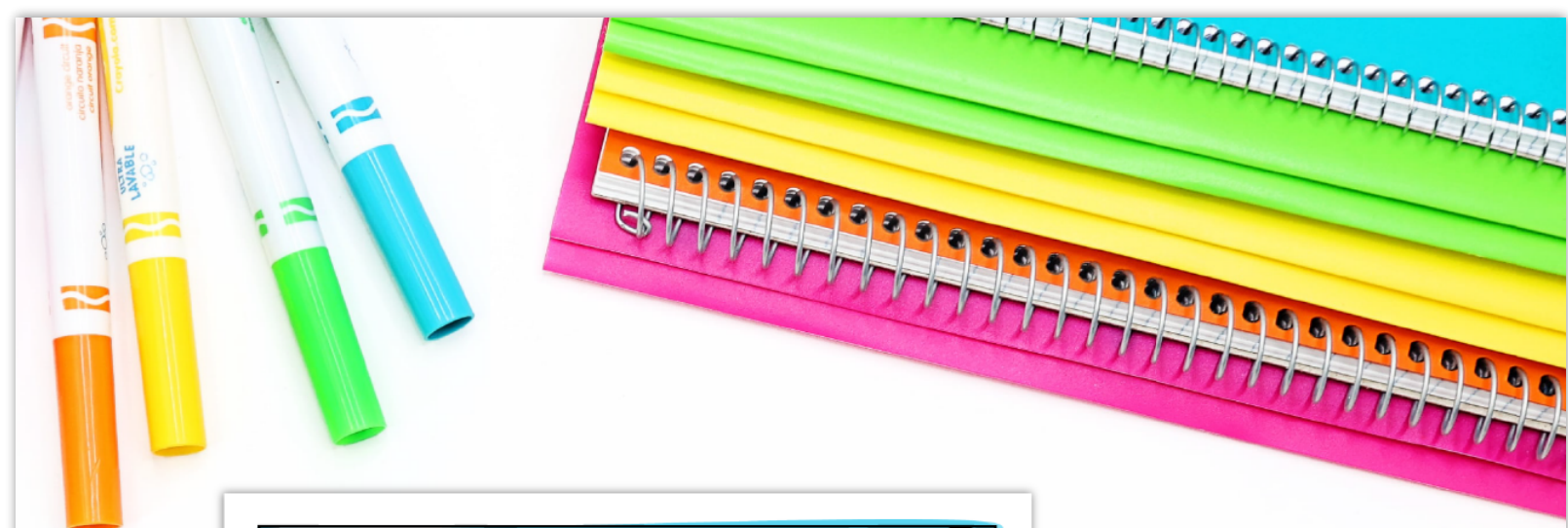


$$\begin{aligned} 7 \text{ units} &\rightarrow 21 \\ 1 \text{ unit} &\rightarrow 21 \div 7 = 3 \\ 5 \text{ units} &\rightarrow 5 \times 3 = 15 \end{aligned}$$

Additional Algorithm

$$\frac{3}{5} \times 20 =$$

GRADE 4



FRACTION OF A SET

45
Set 4

- There are 16 cubes in a set.
- The set is divided into 4 equal groups.
- 3 out of the groups are orange.
- 12 out of the cubes are orange.

What is $\frac{3}{4}$ of 16?

① 4 units $\rightarrow 16$

② 1 unit $\rightarrow 16 \div 4 = 4$

③ 3 units $\rightarrow 3 \times 4 = 12$

④ $\frac{3}{4}$ of 16 = 12

Standard Algorithm

① Divide the whole number by the denominator: $16 \div 4 = 4$

② Multiply the quotient by the numerator: $4 \times 3 = 12$

Create a Bar Model

FRACTION OF A SET

45
Set 4

- There are 16 cubes in a set.
- The set is divided into 4 equal groups.
- 3 out of the 4 groups are orange.
- 12 out of the 16 cubes are orange.

What is $\frac{3}{4}$ of 16?

① 4 units $\rightarrow 16$

② 1 unit $\rightarrow 16 \div 4 = 4$

③ 3 units $\rightarrow 3 \times 4 = 12$

④ $\frac{3}{4}$ of 16 = 12

Standard Algorithm

① Divide the whole number by the denominator: $16 \div 4 = 4$

② Multiply the quotient by the numerator: $4 \times 3 = 12$

Create a Bar Model

2 SIZES: STANDARD US 8.5 × 11 & COMPOSITION NOTEBOOK



$\frac{2}{3}$ units $\rightarrow 2 \times 3 = 6$ $\frac{2}{3}$ units $\rightarrow 2 \times 6 = 12$ $\frac{5}{7}$ units $\rightarrow 5 \times 7 = 35$

$\frac{2}{3}$ of 15 = 6 $\frac{2}{3}$ of 18 = 12 $\frac{5}{7}$ of 21 = 15

Additional Algorithm $\frac{3}{5} \times 20 = \frac{3 \times 20}{5} = \frac{60}{5} = 12$

Additional Algorithm $\frac{3}{5} \times 20 = \frac{3 \times 20}{5} = \frac{60}{5} = 12$

©2023 Teacher Thrive.com

STEP-BY-STEP POWERPOINT

FRACTION OF A SET 45

① There are 16 cubes in a set.

② The set is divided into 4 equal groups.

③ 3 out of the 4 groups are orange.
"of" means multiply

④ 12 out of the 16 cubes are orange.

16? **Create a Bar Model**

$\overbrace{16}$
 $\begin{array}{|c|c|c|c|} \hline 4 & 4 & 4 & 4 \\ \hline \end{array}$
 $\underbrace{12}$

Number ② Multiply the quotient by the numerator:
 $4 \times 3 = 12$

What is $\frac{3}{4}$ of 15?

$\overbrace{15}$
 $\begin{array}{|c|c|c|c|c|} \hline 3 & 3 & 3 & 3 & 3 \\ \hline \end{array}$
 $\underbrace{6}$
 5 units $\rightarrow 15$
 1 unit $\rightarrow 15 \div 5 = 3$
 2 units $\rightarrow 2 \times 3 = 6$
 $\frac{2}{5}$ of 15 = 6

What is $\frac{3}{4}$ of 18?

$\overbrace{18}$
 $\begin{array}{|c|c|c|} \hline 6 & 6 & 6 \\ \hline \end{array}$
 $\underbrace{12}$
 3 units $\rightarrow 18$
 1 unit $\rightarrow 18 \div 3 = 6$
 2 units $\rightarrow 2 \times 6 = 12$
 $\frac{2}{3}$ of 18 = 12

What is $\frac{3}{5}$ of 21?

$\overbrace{21}$
 $\begin{array}{|c|c|c|c|c|c|} \hline 3 & 3 & 3 & 3 & 3 & 3 \\ \hline \end{array}$
 $\underbrace{15}$
 7 units $\rightarrow 21$
 1 unit $\rightarrow 21 \div 7 = 3$
 5 units $\rightarrow 5 \times 3 = 15$
 $\frac{5}{7}$ of 21 = 15

Additional Algorithm $\frac{3}{5} \times 20 = \frac{3 \times 20}{5} = \frac{60}{5} = 12$

©2023-Teacher Thrive.com



FRACTION OF A SET

45

1 There are 16 cubes in a set.

2 The set is divided into 4 equal groups.

3 3 out of the 4 groups are orange.

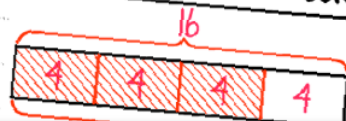
"of" means multiply
4 12 out of the 16 cubes are orange.



- 1 4 units $\rightarrow 16$
- 2 1 unit $\rightarrow 16 \div 4 = 4$
- 3 3 units $\rightarrow 3 \times 4 = 12$
- 4 $\frac{3}{4}$ of 16 = 12

What is $\frac{3}{4}$ of 16?

Create a Bar Model



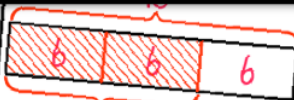
Standard Algorithm

$$\frac{3}{4} \times 16$$

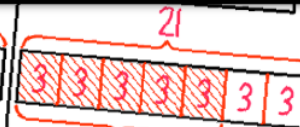
What is $\frac{2}{5}$ of



- 5 units $\rightarrow 15$
- 1 unit $\rightarrow 15 \div 5 = 3$
- 2 units $\rightarrow 2 \times 3 = 6$
- $\frac{2}{5}$ of 15 = 6



- 3 units $\rightarrow 18$
- 1 unit $\rightarrow 18 \div 3 = 6$
- 2 units $\rightarrow 2 \times 6 = 12$
- $\frac{2}{3}$ of 18 = 12



- 7 units $\rightarrow 21$
- 1 unit $\rightarrow 21 \div 7 = 3$
- 5 units $\rightarrow 5 \times 3 = 15$
- $\frac{5}{7}$ of 21 = 15

Additional Algorithm

$$\frac{3}{5} \times 20 = \frac{3}{5} \times \frac{20}{1} = \frac{60}{5} = 12$$