Week 7, Day 4
Find fractions of amounts (1)

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. If possible, watch the **PowerPoint presentation** with a teacher or another grown-up.

   OR start by carefully reading through the **Learning Reminders**.

2. Tackle the questions on the **Practice Sheet**.
   There might be a choice of either Mild (easier) or Hot (harder)!
   Check the answers.

3. Finding it tricky? That's OK… have a go with a grown-up at **A Bit Stuck?**

4. Think you've cracked it? Whizzed through the Practice Sheets?
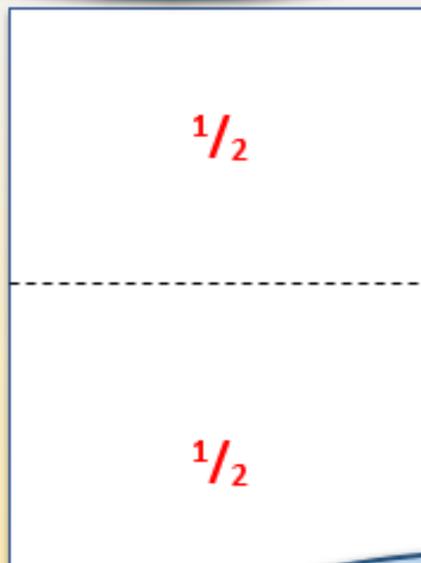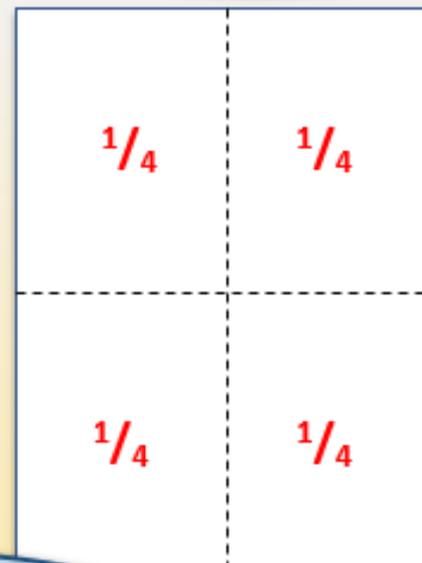   Have a go at the **Investigation**…

Learning Reminders

Halves and quarters.

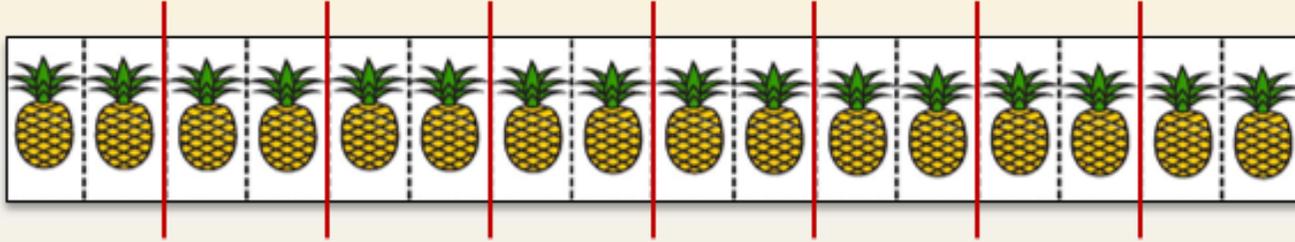Fold a sheet of paper in half. What can you say about each piece?

Now fold your paper into four equal parts. Each part is a quarter.

¹/₂

¹/₂

¹/₄   ¹/₄

¹/₄   ¹/₄

Two quarters are the same size as one half!

Learning Reminders

Find fractions of amounts (quarters and eighths).

How many pineapples on this strip?
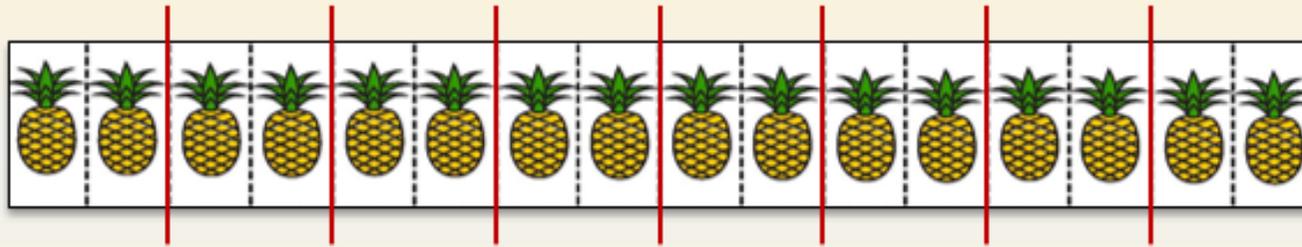
How many are in **each half?**

How many are in **each quarter?**

How many in **two quarters?** What do you notice?

How many pineapples are in each **eighth?**

Learning Reminders

Find fractions of amounts (quarters and eighths).

We can use our strip to answer questions about **fractions of 16.**

Suppose you had a strip of **24 objects.** How many would **half** be? And $1/4$? And $1/8$?
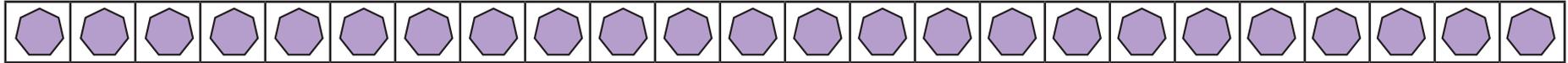
What is $1/2$ of 16?

What is $1/4$ of 16?

What is $2/4$ of 16?

What is $1/8$ of 16?

What is $3/8$ of 16?

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$\frac{1}{2}$ of 24 = [ ]

$\frac{1}{8}$ of 24 = [ ]

$\frac{1}{4}$ of 24 = [ ]

$\frac{3}{8}$ of 24 = [ ]

$\frac{2}{4}$ of 24 = [ ]
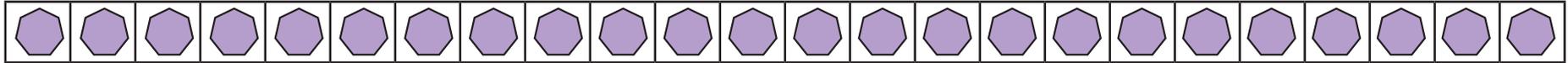
$\frac{5}{8}$ of 24 = [ ]

$\frac{3}{4}$ of 24 = [ ]

$\frac{7}{8}$ of 24 = [ ]

Now find different numbers of quarters and halves of 32.

Practice Sheet Hot
Fractions practice

$\frac{1}{8}$ of 24 =

$\frac{4}{8}$ of 24 =

$\frac{7}{8}$ of 24 =

$\frac{5}{8}$ of 24 =

$\frac{8}{8}$ of 24 =

$\frac{3}{8}$ of 24 =

Now find different numbers of eighths of 48.

Practice Sheet Answers

Fractions practice (Mild)

$\frac{1}{2}$ of 24 = 12 $\frac{1}{2}$ of 32 = 16
$\frac{1}{4}$ of 24 = 6 $\frac{1}{4}$ of 32 = 8
$\frac{2}{4}$ of 24 = 12 $\frac{2}{4}$ of 32 = 16
$\frac{3}{4}$ of 24 = 18 $\frac{3}{4}$ of 32 = 24
$\frac{1}{8}$ of 24 = 3
$\frac{3}{8}$ of 24 = 9
$\frac{5}{8}$ of 24 = 15
$\frac{7}{8}$ of 24 = 21

Fractions practice (Hot)

Day 1 Finding $\frac{1}{8}$s Sheet 2

$\frac{1}{8}$ of 24 = 3 $\frac{1}{8}$ of 48 = 6
$\frac{4}{8}$ of 24 = 12 $\frac{2}{8}$ of 48 = 12
$\frac{7}{8}$ of 24 = 21 $\frac{3}{8}$ of 48 = 18
$\frac{5}{8}$ of 24 = 15 $\frac{4}{8}$ of 48 = 24
$\frac{8}{8}$ of 24 = 24 $\frac{5}{8}$ of 48 = 30
$\frac{3}{8}$ of 24 = 9 $\frac{6}{8}$ of 48 = 36
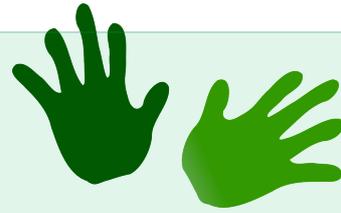 $\frac{7}{8}$ of 48 = 42

A Bit Stuck?
Fruit strips

Work in pairs

Things you will need:
- Fruit strips
- A pencil

What to do:

- Take it in turns to choose a strip of fruits.

- Fold it in half and then in half again.
  It is now folded into quarters.

- How many fruits are in each quarter?
  Write the matching fraction sentence.

- Repeat for as many strips of fruit as
  you can.

¼ of 4 is 1

¼ of 12 is...

S-t-r-e-t-c-h:
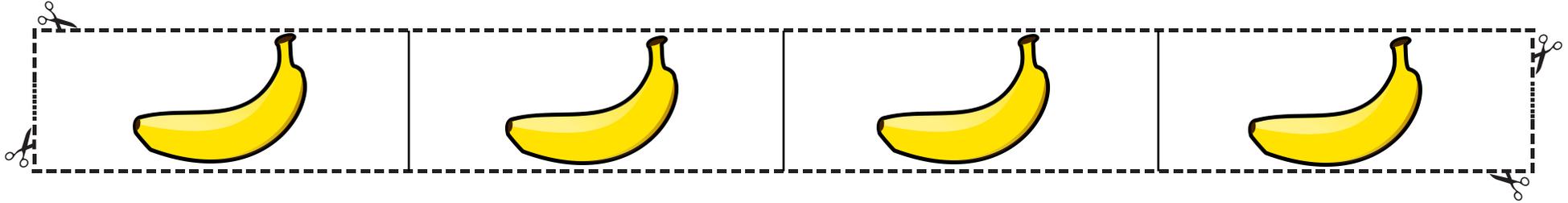Choose one strip. Count how many fruits are in several quarters.

¼ of ☐ is ☐

²⁄₄ of ☐ is ☐

¾ of ☐ is ☐

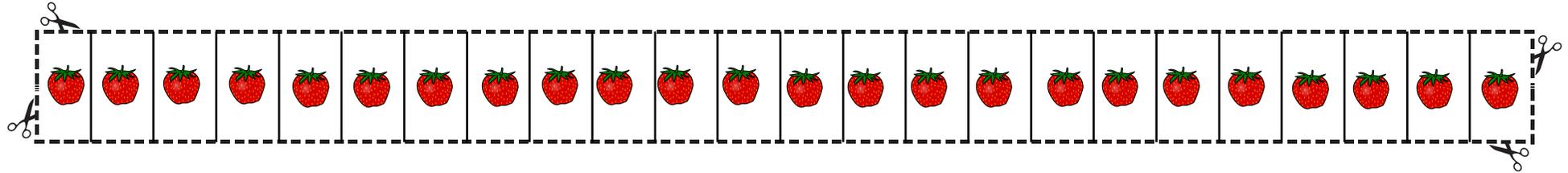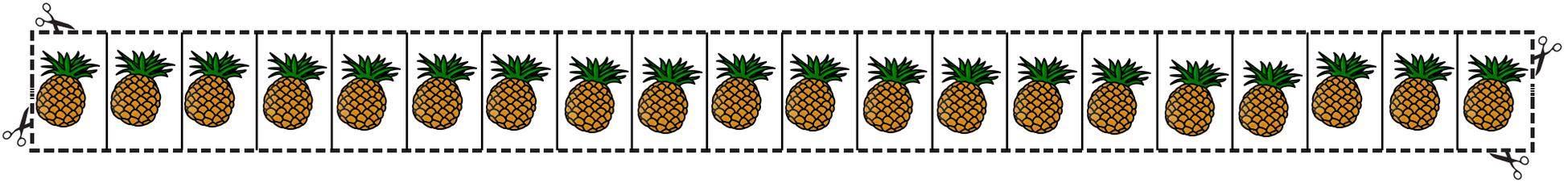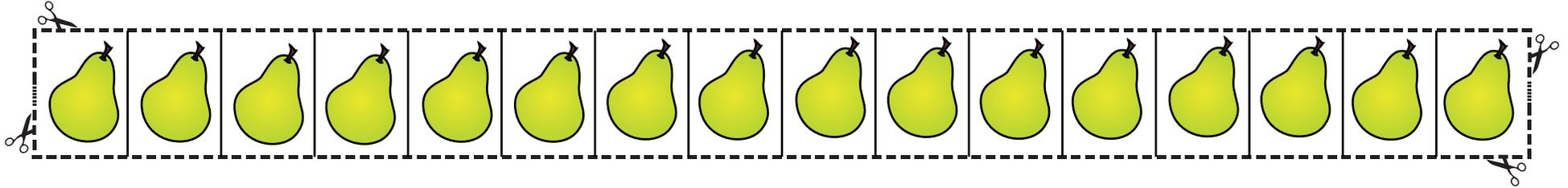**Learning outcomes**:
- I can find ¼ of amounts by folding strips (whole number answers).
- I am beginning to find several quarters of amounts (whole number answers).

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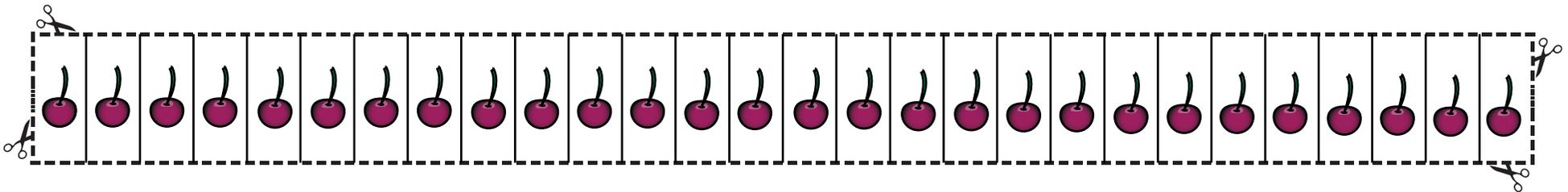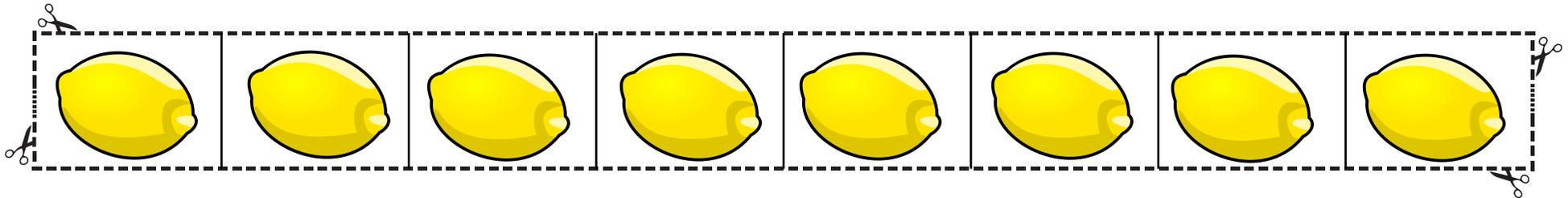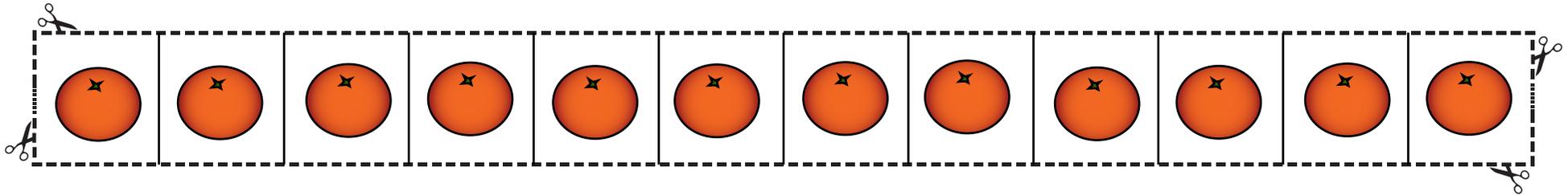
Investigation
Fraction clues

1. Use your knowledge about finding fractions
    of numbers to solve this logic puzzle:

> I am a whole number between 10 and 25.
> If you halve me, your answer will not be
> a whole number.
> If you find $\frac{1}{3}$ of me, your answer will be
> a multiple of 5.
> If you try to find $\frac{1}{4}$ of me, you may get
> a headache!
> If you find $\frac{1}{5}$ of me, your answer will be
> a whole number.
> What am I?

2. Have a go at this one!

> I am a very special number between 10
> and 20.
> I am special because if you find $\frac{1}{2}$ of
> me, $\frac{1}{3}$ of me, $\frac{1}{4}$ of me, or even $\frac{1}{6}$
> of me, you will get a whole number answer!
> What am I?

Challenge

What if the number in puzzle two was between 20 and 30? Or between 30 and 40?
Can you think of any other numbers that would satisfy all the other clues? What do
you notice about them?
Think of another 'special' number and write your own fraction clues about it for
someone else to work out.