Fractions of a set of objects (2)
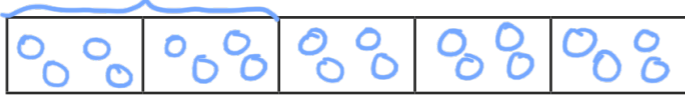
1 Draw counters in the bar models to help you complete each number sentence.

a) $\frac{2}{3}$ of 15 = $\boxed{10}$ ⌒ ⓞⓞⓞⓞⓞ | ⓞⓞⓞⓞⓞ | ⓞⓞⓞⓞⓞ
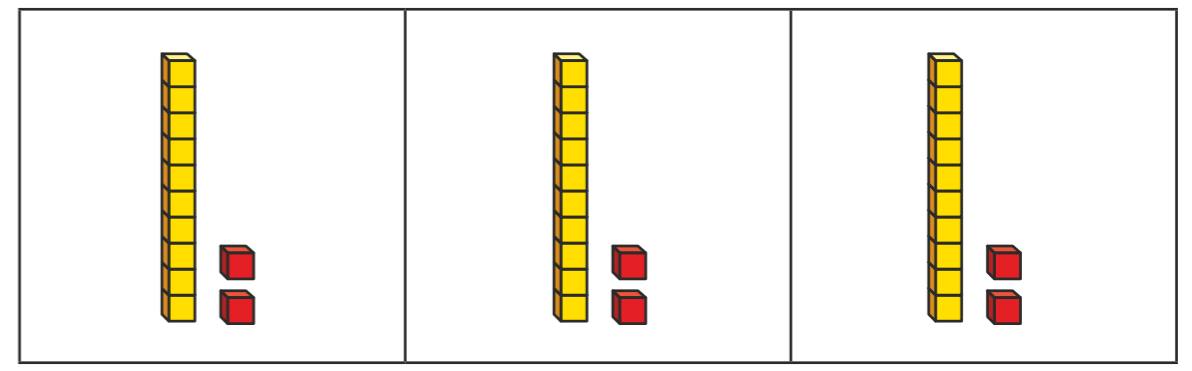
b) $\frac{3}{4}$ of 8 = $\boxed{6}$ ⌒ ○○ | ○○ | ○○ | ○○

c) $\frac{2}{5}$ of 20 = $\boxed{8}$ ⌒ ○○○○ | ○○○○ | ○○○○ | ○○○○ | ○○○○

2 Match the questions and answers.

$\frac{2}{3}$ of 9 = ?		9
$\frac{3}{5}$ of 15 = ?		6
$\frac{5}{6}$ of 12 = ?		15
$\frac{3}{4}$ of 20 = ?		10

3 What is $\frac{6}{6}$ of 18? $\boxed{18}$

How do you know?

4 Brett uses a bar model and base 10 to find $\frac{2}{3}$ of 36

Use Brett's method to complete the number sentences.

a) $\frac{2}{3}$ of 63 = $\boxed{42}$

b) $\frac{3}{4}$ of 48 = $\boxed{36}$

c) $\frac{3}{4}$ of 92 = $\boxed{69}$

5 Kim uses a bar model and place value counters to find $\frac{2}{3}$ of 36
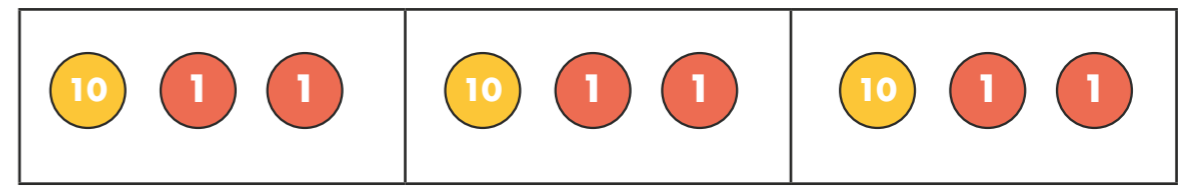
Use Kim's method to complete the number sentences.

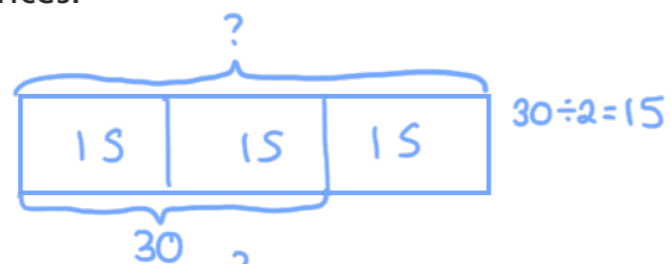a) $\frac{2}{3}$ of 96 = $\boxed{64}$

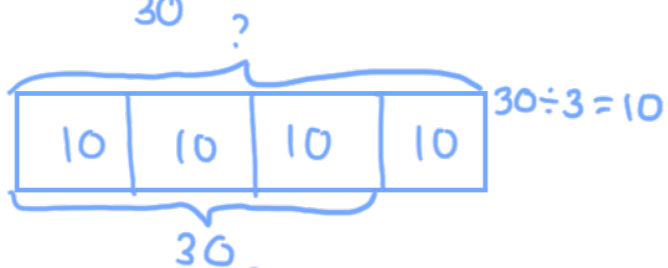b) $\frac{3}{5}$ of 60 = $\boxed{36}$

c) $\frac{3}{4}$ of 52 = $\boxed{39}$

6 Complete the number sentences.

a) $\frac{2}{3}$ of [45] = 30

?
| 15 | 15 | 15 | $30 \div 2 = 15$
30

b) $\frac{3}{4}$ of [40] = 30

?
| 10 | 10 | 10 | 10 | $30 \div 3 = 10$
30

c) $\frac{5}{6}$ of [36] = 30

?
| 6 | 6 | 6 | 6 | 6 | 6 | $30 \div 5 = 6$
30
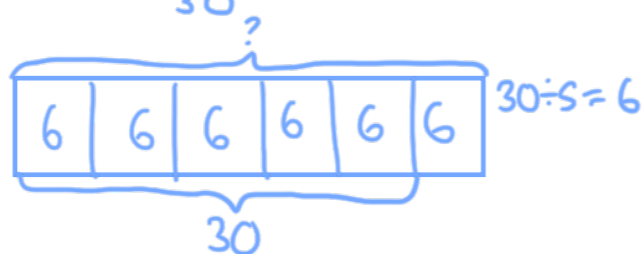
7

Tommy: To find $\frac{3}{4}$ of 12, you divide by 4 and then multiply the answer by 3

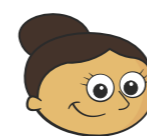Dexter: To find $\frac{3}{4}$ of 12, you divide by 3 and then multiply the answer by 4

Who is correct? ___Tommy___

How do you know? Show your working.

8 Dora, Whitney and Ron each find a fraction of 24 using counters.

Dora: I have $\frac{5}{6}$ of 24

Whitney: I have $\frac{2}{3}$ of 24

Ron: I have 18 counters.

a) Who has the most counters? Show your workings.

$\frac{5}{6}$ of 24 = 20 $\frac{2}{3}$ of 24 = 16

___Dora___

b) How many more counters does Dora have than Whitney?

$20 - 16 = 4$ [4]

9 Write fractions to make the statements correct.

e.g.

[$\frac{1}{6}$] of 36 < 18

[$\frac{1}{2}$] of 36 = 18

[$\frac{3}{4}$] of 36 > 18

How many different answers can you find for each?
Compare with a partner.