

Calculate with Percentages

Tick the **two** numbers that are equivalent to $\frac{1}{4}$

Tick **two**.

0.25

0.75

$\frac{25}{100}$

0.5

$\frac{2}{5}$

What percentages are equivalent to each?

What other equivalents do you know?

Complete this:

50% is the same as $\frac{1}{\square}$ so \div by ...

25% is the same as $\frac{1}{\square}$ so \div by ...

10% is the same as $\frac{1}{\square}$ so \div by ...

1% is the same as $\frac{1}{\square}$ so \div by ...

Chunk 1

Remember...

To find 50% $\div 2$

To find 25% $\div 4$

To find 10% $\div 10$

To find 1% $\div 100$

50% of 428

25% \times 428

10% of 428

1% \times 428

Chunk 1: Your Turn

- a) 50% of 1428
- b) 25% X 460
- c) 10% of 2570
- d) 1% X 390



EXPLAIN IT!

Explain how you know each of your answers.

Chunk 1: Answers

a) 50% of 1428

$$1428 \div 2 = 714$$

b) 25% X 460

$$460 \div 4 = 115$$

c) 10% of 2570

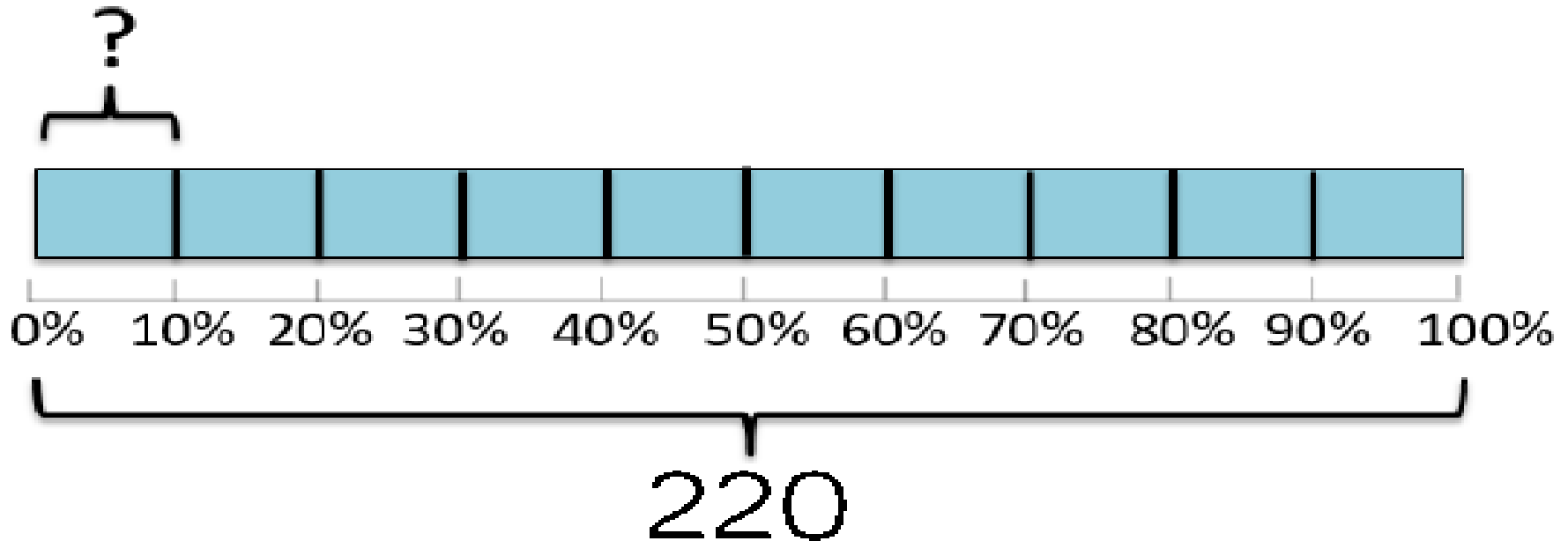
$$2570 \div 10 = 257$$

d) 1% X 390

$$390 \div 100 = 3.9$$

Chunk 2

If you know how to find 10%, how could you use this to find 20%?



30%?

40%?

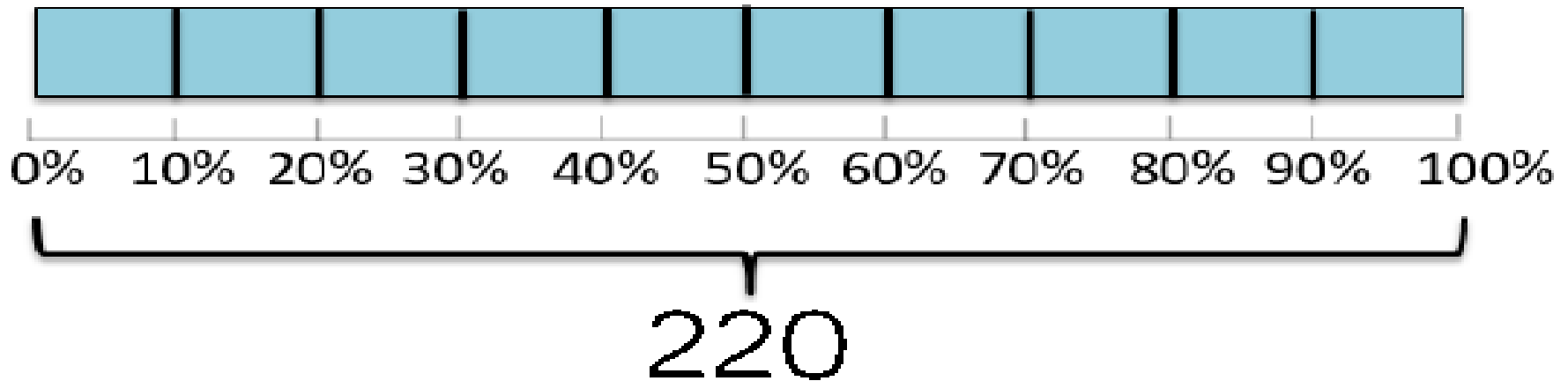
60%?

70%?

Why is this not an efficient method to find 50%?

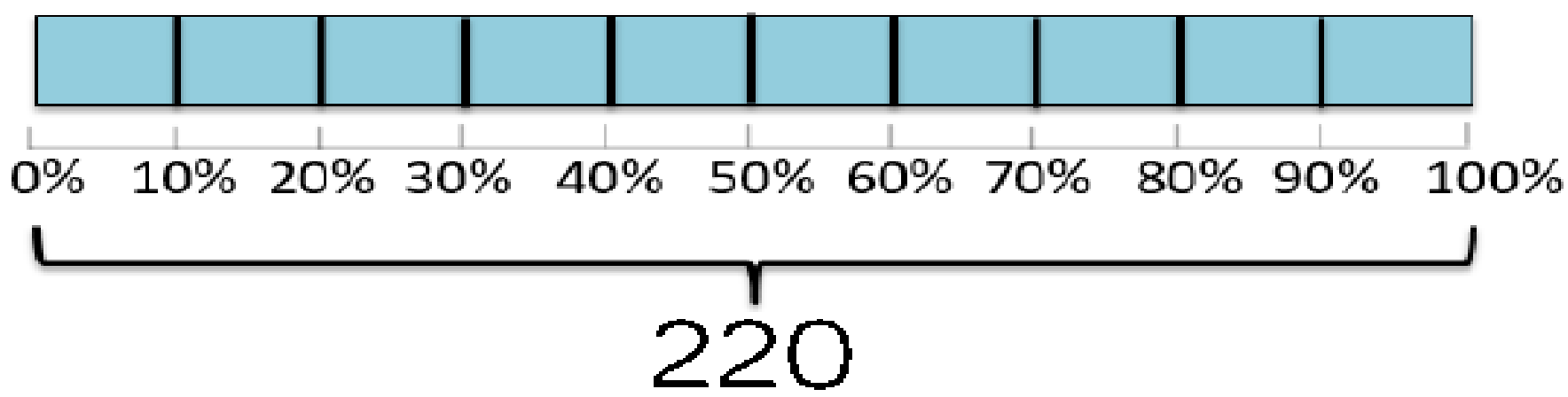
What could we do to find 5% of a number?

?



How could you use this to find 15%? 35%?

?



Chunk 2: Your Turn

Find ... of 480

- a) 5%
- b) 15%
- c) 35%
- d) 45%

e) Jack has £400

He spends 35% of his money on a new bike.

How much does Jack spend on his new bike?



**MAKE A
MISTAKE**
... and
explain how
it might be
easily made.

Chunk 2: Answers

Find ... of 480

a) $5\% = 24$

$10\% = 48$ $5\% = 48 \div 2 = 24$

b) $15\% = 72$

$15\% = 10\% + 5\% = 48 + 24$

c) $35\% = 168$

$35\% = 20\% + 10\% + 5\%$
 $= 96 + 48 + 24$

d) $45\% = 216$



**MAKE A
MISTAKE**
... and
explain how
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easily made.

Chunk 2: Answers

Jack has £400

He spends 35% of his money on a new bike.

How much does Jack spend on his new bike?

$$10\% \text{ of } 400 = 40$$

$$5\% \text{ of } 400 = 20$$

$$20\% \text{ of } 400 = 80$$

$$20\% + 10\% + 5\% = 35\%$$

$$80 + 40 + 20 = 140$$

Chunk 3

99% of 200 =

11% of 420 =

Chunk 3

28% of 420 =

36% of 760 =

Chunk 3: Your Turn

- a) 99% of 300
- b) 11% of 340
- c) 24% of 5600
- d) 72% of 1200



**AND
ANOTHER!**

Is there another way that you could calculate some of these percentages?

Plenary

Which problem was the most challenging? Explain why it was the most challenging.

