

Multiplying and dividing by 10, 100 and 1000 Worksheet

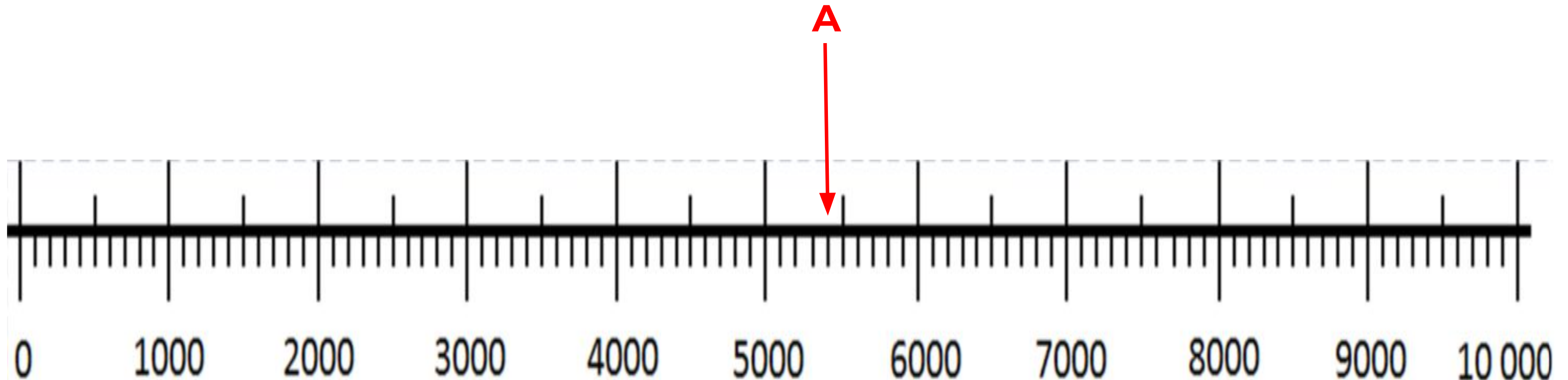
Mr Ward



Warm up - Reasoning with large numbers



Can you approximate the position of the following numbers on the number line?

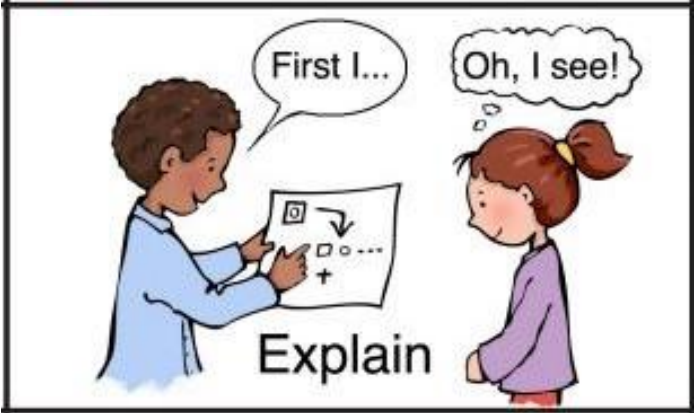


- | | | | | |
|----------------|----------------|------------------|------------------|------------------|
| A) 5420 | B) 9350 | C) 12 400 | D) 49 600 | E) 83 005 |
|----------------|----------------|------------------|------------------|------------------|



Talk Task

Discuss, draw and demonstrate how to multiply and divide by 100 and 1000.



Demonstrate completing these calculations:

Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones

- a) 32×100
- b) 320×100
- c) $4100 \div 100$
- d) $41\,000 \div 100$
- e) 32×1000
- f) 320×1000
- g) $4000 \div 1000$
- h) $41\,000 \div 1000$



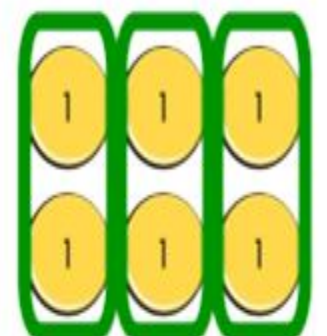
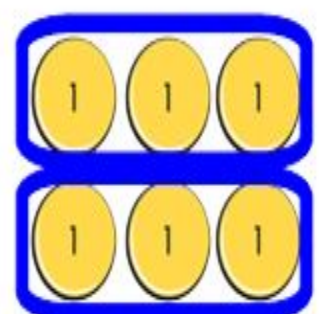
Talk Task

Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones



$$2 \times 3 = 6$$

$$3 \times 2 = 6$$



$$6 \div 2 = 3$$

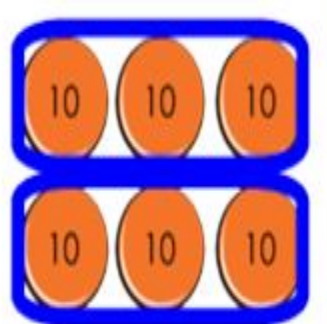
$$6 \div 3 = 2$$

$$2 \times 30 = 60$$

$$30 \times 2 = 60$$

$$3 \times 20 = 60$$

$$20 \times 3 = 60$$

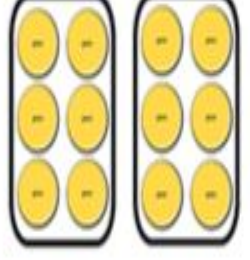
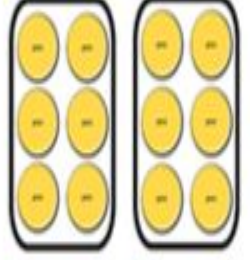
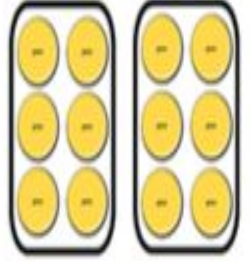
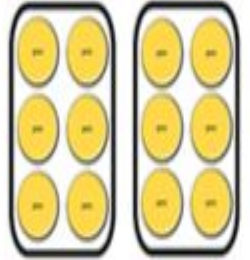
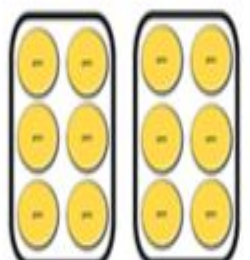


$$60 \div 3 = 20$$

$$60 \div 20 = 3$$

$$60 \div 2 = 30$$

$$60 \div 30 = 2$$

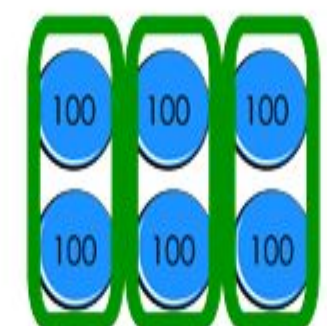
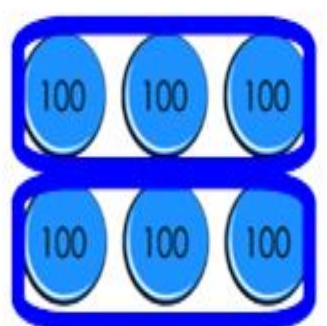


$$2 \times 300 = 600$$

$$300 \times 2 = 600$$

$$3 \times 200 = 600$$

$$200 \times 3 = 600$$

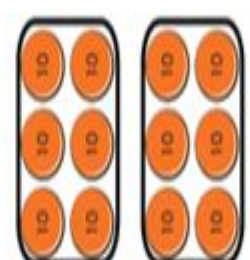


$$600 \div 3 = 200$$

$$600 \div 200 = 3$$

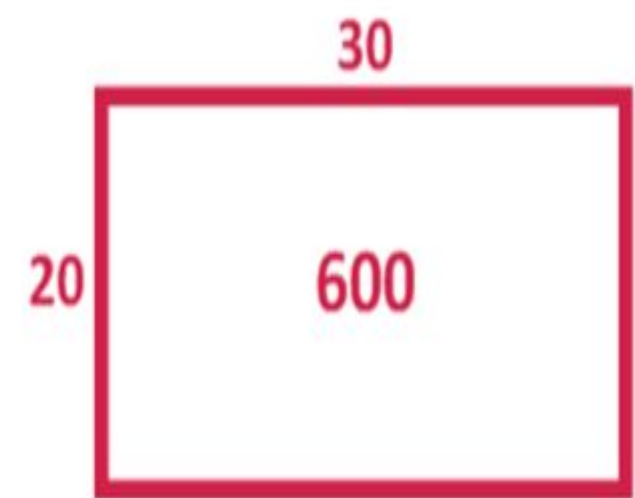
$$600 \div 2 = 300$$

$$600 \div 300 = 2$$



$$20 \times 30 = 600$$

$$30 \times 20 = 600$$



$$600 \div 30 = 20$$

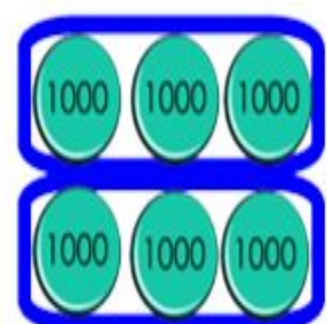
$$600 \div 20 = 30$$

$$2 \times 3000 = 6000$$

$$3000 \times 2 = 6000$$

$$3 \times 2000 = 6000$$

$$2000 \times 3 = 6000$$



$$6000 \div 2 = 3000$$

$$6000 \div 3000 = 2$$

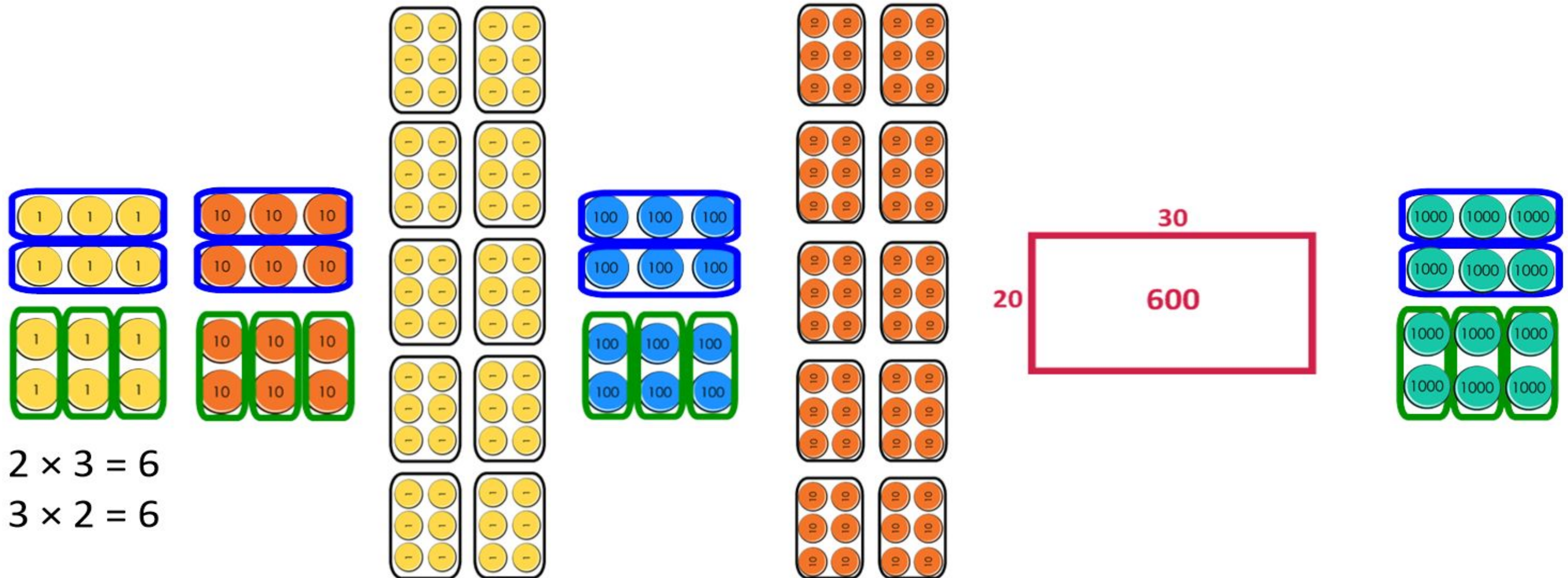
$$6000 \div 3 = 2000$$

$$6000 \div 2000 = 3$$



Record and explain the facts derived from a the known fact.

Now it is your turn! Choose a simple known fact and start to record all of the multiplication and division facts derived from it!



Challenge Slide - Reasoning



Can you approximate the value of the arrows on the number line? Can you explain how you know?

