

# Hampshire Mathematics Team

## Multiplication templates

*One, ten, five derive...*

# 10x Table

Multiplication and Division Facts

*One, ten, five derive...*

10

10+10=

10+10+10=

10+10+10+10=

10+10+10+10+10=

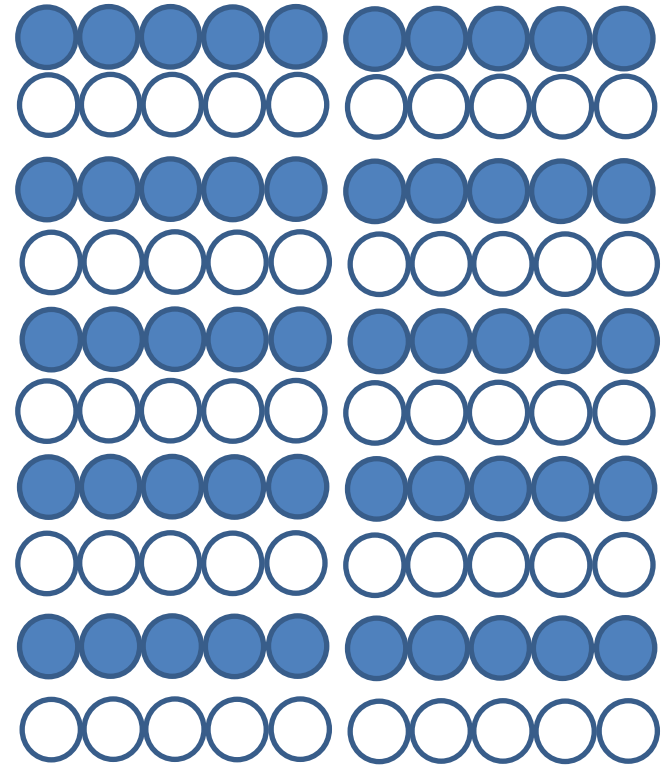
10+10+10+10+10+10=

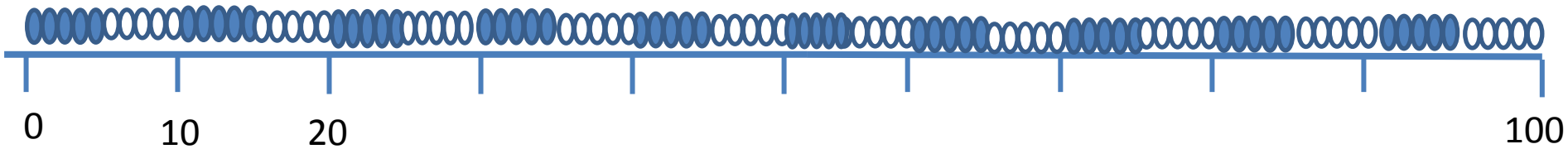
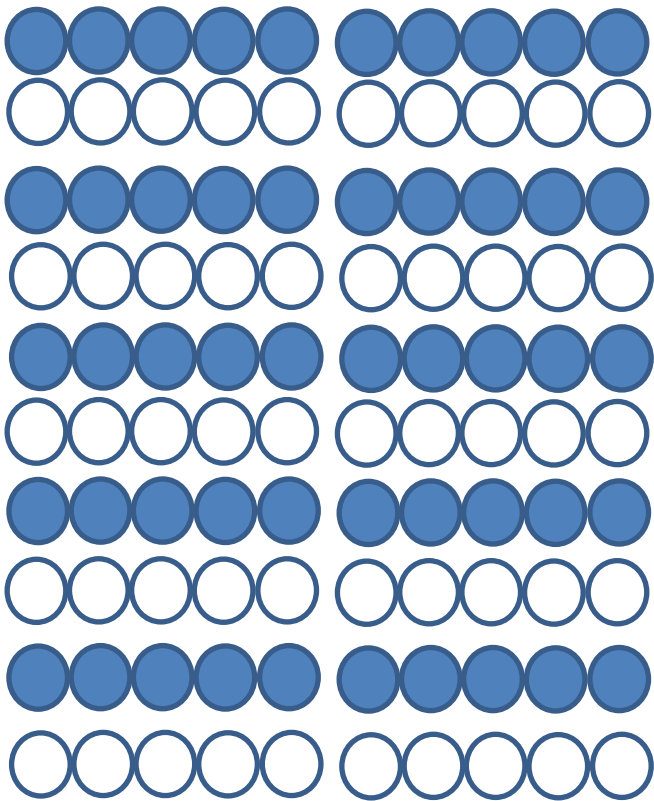
10+10+10+10+10+10+10=

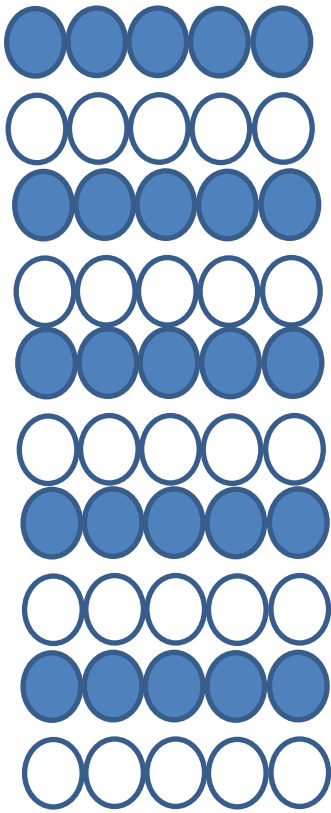
10+10+10+10+10+10+10+10=

10+10+10+10+10+10+10+10+10=

10+10+10+10+10+10+10+10+10+10=







**5** X1=

**5** X2=

**5** X3=

**5** X4=

**5** X5=

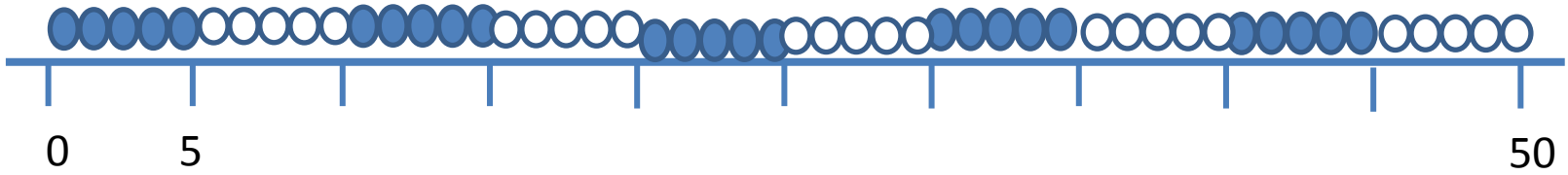
**5** X6=

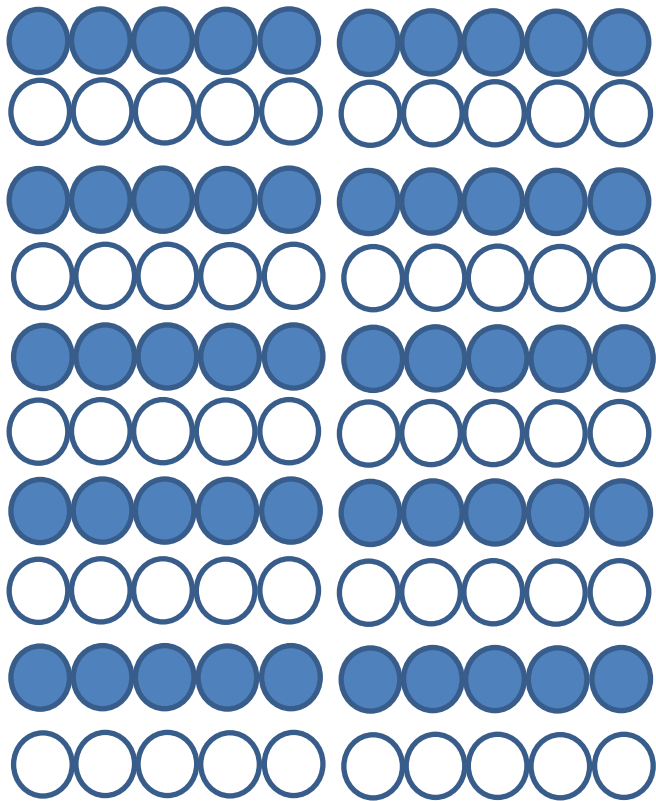
**5** X7=

**5** X8=

**5** X9=

**5** X10=





**10** X1=

**10** X2=

**10** X3=

**10** X4=

**10** X5=

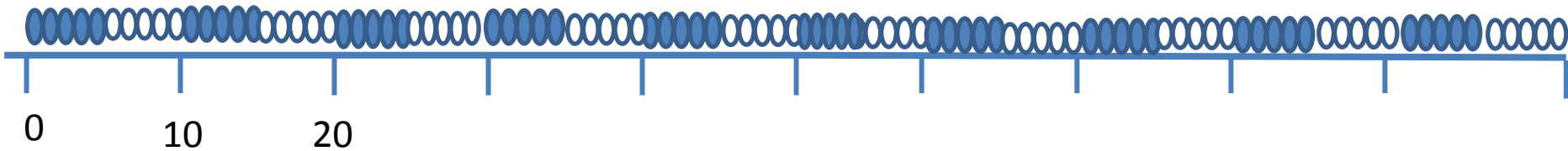
**10** X6=

**10** X7=

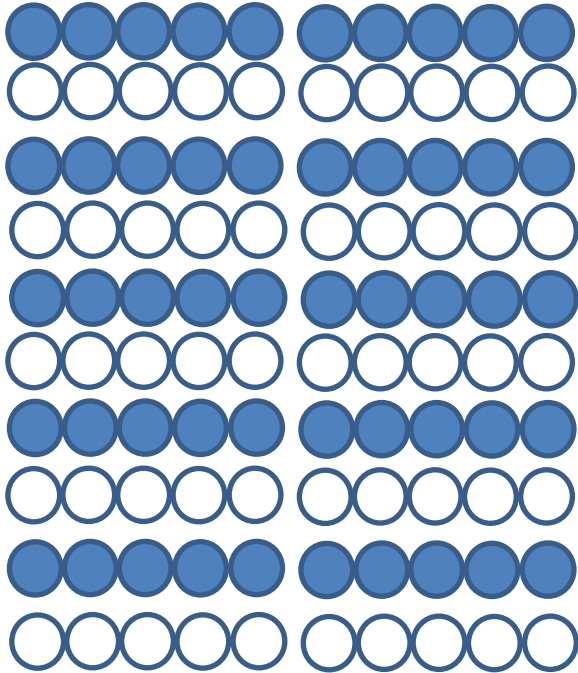
**10** X8=

**10**X9=

**10** X10=



## Counting in 10s, Multiples of 10



10

$10+10=$

$10+10+10=$

$10+10+10+10=$

$10+10+10+10+10=$

$10+10+10+10+10+10=$

$10+10+10+10+10+10+10=$

$10+10+10+10+10+10+10+10=$

$10+10+10+10+10+10+10+10+10=$

$10+10+10+10+10+10+10+10+10+10=$

**10** X1=

**10** X2=

**10** X3=

**10** X4=

**10** X5=

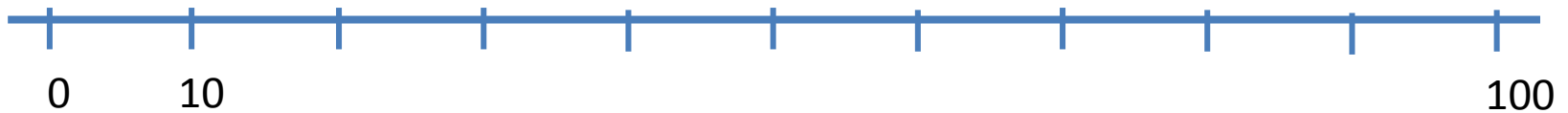
**10** X6=

**10** X7=

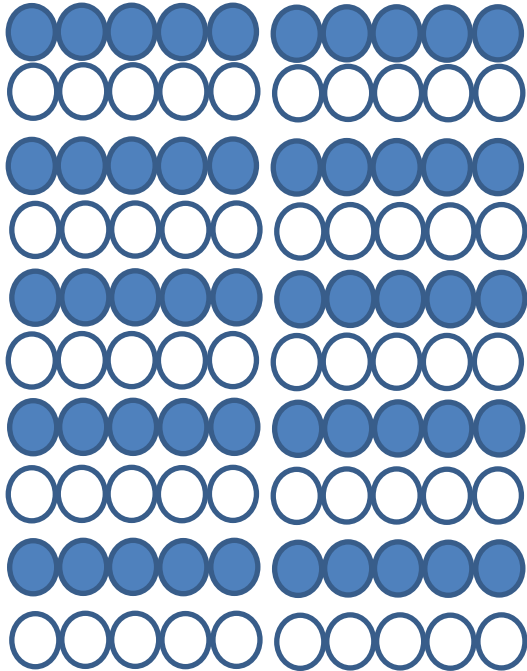
**10** X8=

**10** X9=

**10** X10=



## Multiples of 10



**10** X1=

**10** X2=

**10** X3=

**10** X4=

**10** X5=

**10** X6=

**10** X7=

**10** X8=

**10** X9=

**10** X10=

What is your favourite order for working out these linked facts?





# How many groups of 10 in multiples of 10...?



10

$10 \div 10 =$



20

$20 \div 10 =$



30

$30 \div 10 =$



40

$40 \div 10 =$



50

$50 \div 10 =$



60

$60 \div 10 =$



70

$70 \div 10 =$



80

$80 \div 10 =$



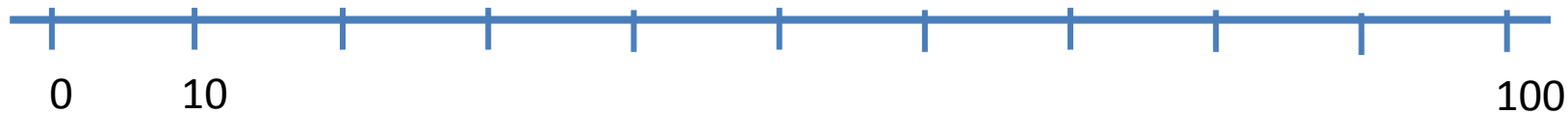
90

$90 \div 10 =$



100

$100 \div 10 =$



# How many groups of 10 in any number...?



11

$11 \div 10 =$



21

$21 \div 10 =$



34

$34 \div 10 =$



46

$46 \div 10 =$



53

$53 \div 10 =$



69

$69 \div 10 =$



73

$73 \div 10 =$



88

$88 \div 10 =$

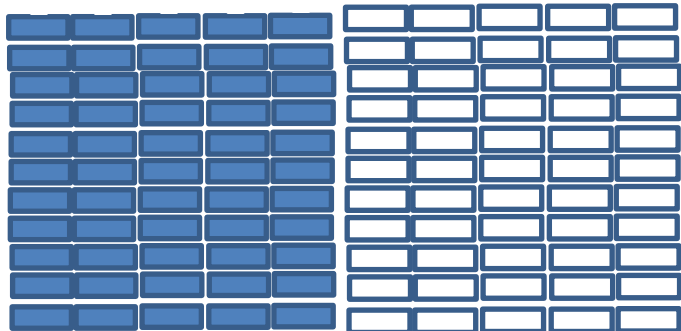
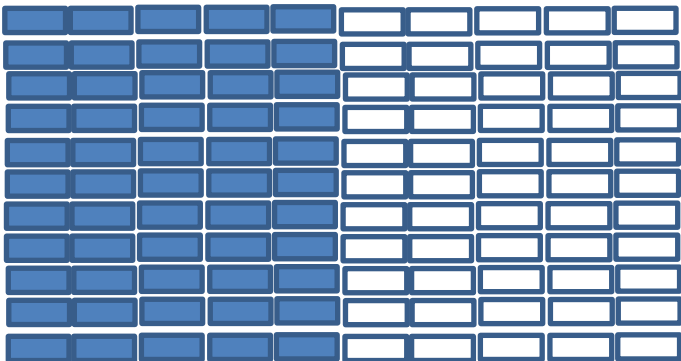


92

$92 \div 10 =$



# Multiples of 10, 100



**10** X1=

100 x1=

**10** X2=

100 x2=

**10** X3=

100 x3=

**10** X4=

100 x4=

**10** X5=

100 x5=

**10** X6=

100 x6=

**10** X7=

100 X7=

**10** X8=

100 X8=

**10**X9=

100 X9=

**10** X10=

100X10=



# Dividing into groups of 10, 100



$30 \div 10 =$

$10 \div 10 =$

$40 \div 10 =$

$50 \div 10 =$

$70 \div 10 =$

$60 \div 10 =$

$20 \div 10 =$

$80 \div 10 =$

$100 \div 10 =$

$90 \div 10 =$



$300 \div 100 =$

$100 \div 100 =$

$400 \div 100 =$

$500 \div 100 =$

$700 \div 100 =$

$600 \div 100 =$

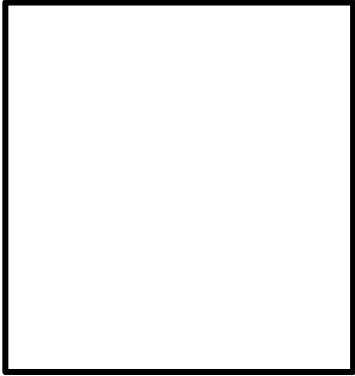
$200 \div 100 =$

$800 \div 100 =$

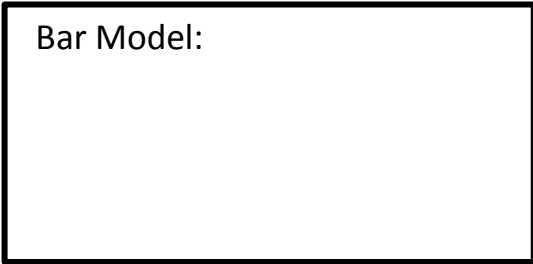
$1000 \div 100 =$

$900 \div 100 =$

Array



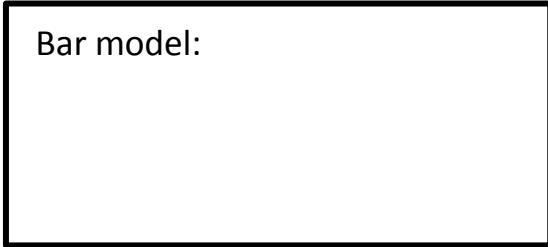
Bar Model:



Number line:



Bar model:

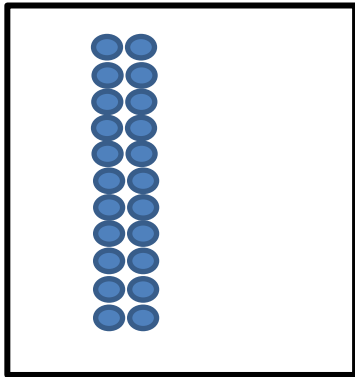


Number line:



$$10 \times 6 =$$

Array



$$200 \times 8 = 1600$$

$$800 \times 2 = 1600$$

$$0.2 \times 8 = 1.6$$

$$0.8 \times 2 = 1.6$$

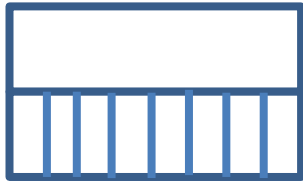
$$\frac{2}{10} \times 8 = \frac{16}{10} = 1 \frac{6}{10}$$

$$\frac{8}{10} \times 2 = \frac{16}{10} = 1 \frac{6}{10}$$

$$20 \times 8 = 160$$

$$80 \times 2 = 160$$

Bar Model:



$$8 \times 2 = 16$$

$$\text{Eg } 2 \times 8 = 16$$

$$16 \div 2 = 8$$

$$16 \div 8 = 2$$

Number line:



$$160 \div 2 = 80$$

$$160 \div 8 = 20$$

$$160 \div 20 = 8$$

$$160 \div 80 = 2$$

Bar model:

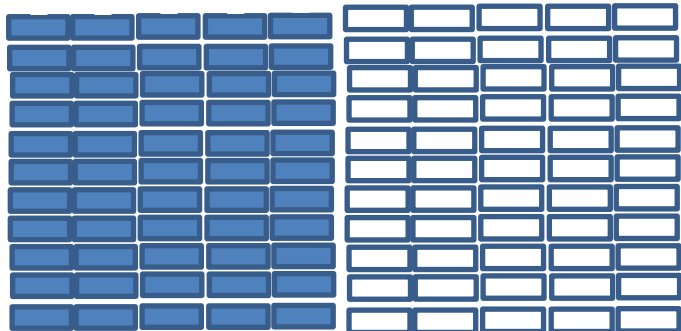
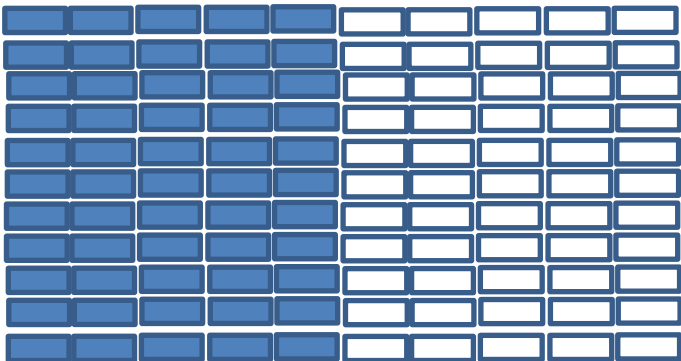


Number line:



Which sets of related facts would be appropriate for Y3, Y4, Y5?  
 Could pupils adjust the number lines, bar models to match?  
 Links to fractions?

# Multiples of 10, 0.1



**10** X1=

**0.1** X1=

**10** X2=

**0.1** X2=

**10** X3=

**0.1** X3=

**10** X4=

**0.1** X4=

**10** X5=

**0.1** X5=

**10** X6=

**0.1** X6=

**10** X7=

**0.1** X7=

**10** X8=

**0.1** X8=

**10**X9=

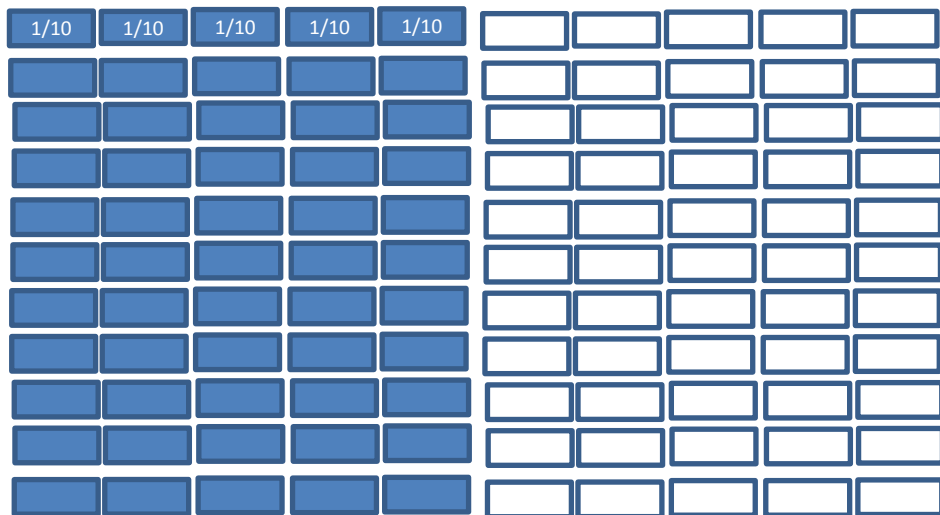
**0.1**X9=

**10** X10=

**0.1** X10=



# Multiples of $1/10$ , 0.1



$1/10 \times 1 =$

$0.1 \times 1 =$

$1/10 \times 2 =$

$0.1 \times 2 =$

$1/10 \times 3 =$

$0.1 \times 3 =$

$1/10 \times 4 =$

$0.1 \times 4 =$

$1/10 \times 5 =$

$0.1 \times 5 =$

$1/10 \times 6 =$

$0.1 \times 6 =$

$1/10 \times 7 =$

$0.1 \times 7 =$

$1/10 \times 8 =$

$0.1 \times 8 =$

$1/10 \times 9 =$

$0.1 \times 9 =$

$1/10 \times 10 =$

$0.1 \times 10 =$





# Dividing into groups of 0.1, 10



$$0.3 \div 0.1 =$$
$$0.6 \div 0.1 =$$

$$0.1 \div 0.1 =$$
$$1 \div 0.1 =$$

$$0.2 \div 0.1 =$$
$$0.4 \div 0.1 =$$

$$0.5 \div 0.1 =$$
$$0.8 \div 0.1 =$$

$$0.7 \div 0.1 =$$
$$0.9 \div 0.1 =$$



$$30 \div 10 =$$
$$60 \div 10 =$$

$$10 \div 10 =$$
$$100 \div 10 =$$

$$20 \div 10 =$$
$$40 \div 10 =$$

$$50 \div 10 =$$
$$80 \div 10 =$$

$$70 \div 10 =$$
$$90 \div 10 =$$

Dividing into groups of 0.1, 10, 100,



$0.3 \div 0.1 =$	$0.1 \div 0.1 =$	$0.2 \div 0.1 =$	$0.5 \div 0.1 =$	$0.7 \div 0.1 =$
$0.6 \div 0.1 =$	$1 \div 0.1 =$	$0.4 \div 0.1 =$	$0.8 \div 0.1 =$	$0.9 \div 0.1 =$



$30 \div 10 =$	$10 \div 10 =$	$20 \div 10 =$	$50 \div 10 =$	$70 \div 10 =$
$60 \div 10 =$	$100 \div 10 =$	$40 \div 10 =$	$80 \div 10 =$	$90 \div 10 =$



$300 \div 100 =$	$100 \div 100 =$	$200 \div 100 =$	$500 \div 100 =$	$700 \div 100 =$
$600 \div 100 =$	$1000 \div 100 =$	$400 \div 100 =$	$800 \div 100 =$	$900 \div 100 =$