

Hampshire Mathematics Team

Multiplication templates

One, ten, five derive...

4x Table

Multiplication and Division Facts

One, ten, five derive...



4



$4+4=$



$4+4+4=$

$4+4+4+4=$

$4+4+4+4+4=$

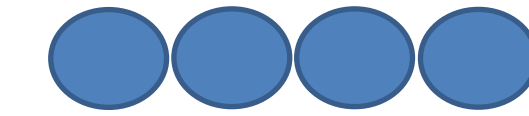
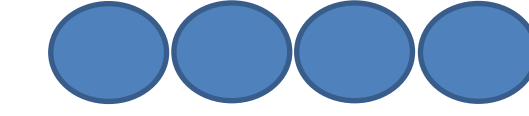
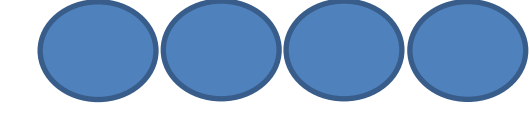
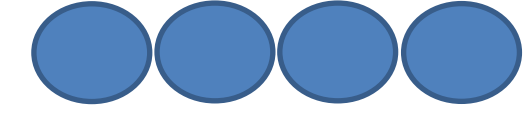
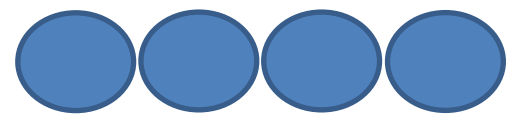
$4+4+4+4+4+4=$

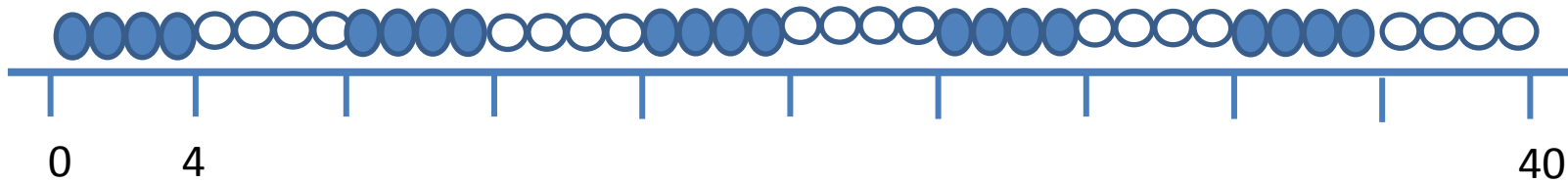
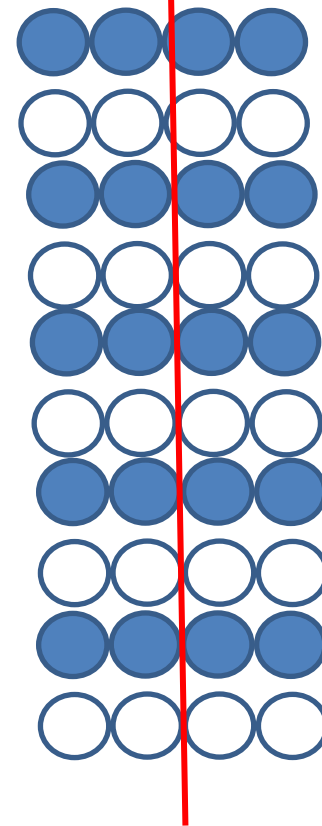
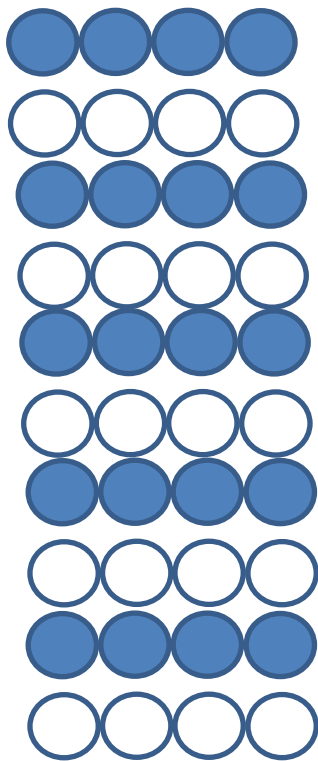
$4+4+4+4+4+4+4=$

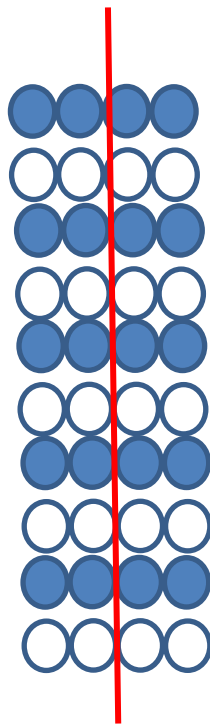
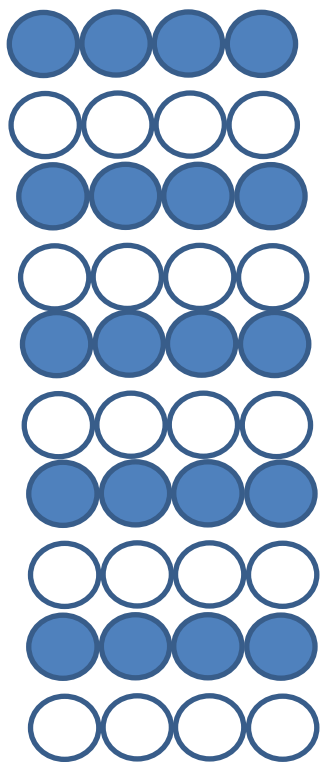
$4+4+4+4+4+4+4+4=$

$4+4+4+4+4+4+4+4+4=$

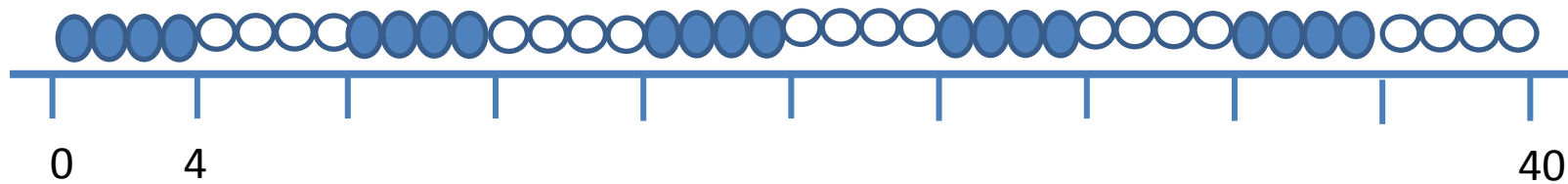
$4+4+4+4+4+4+4+4+4+4=$



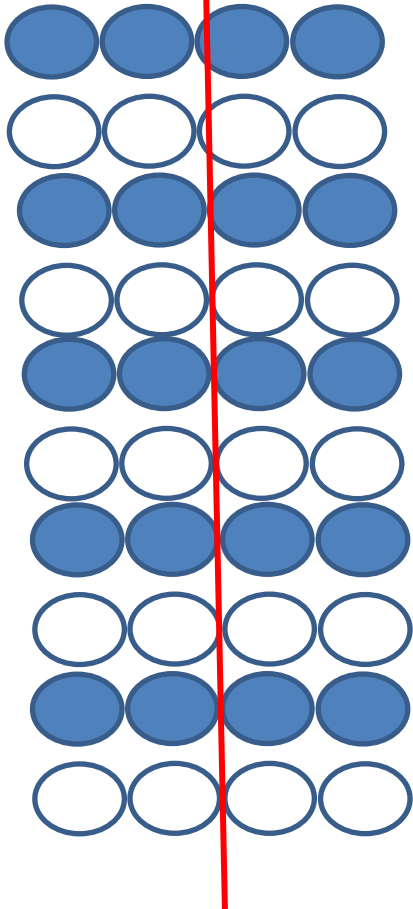




- 4 X 1 =
- 4 X 2 =
- 4 X 3 =
- 4 X 4 =
- 4 X 5 =
- 4 X 6 =
- 4 X 7 =
- 4 X 8 =
- 4 X 9 =
- 4 X 10 =



Counting in 4s, Multiples of 4



4

$4+4=$

$4+4+4=$

$4+4+4+4=$

$4+4+4+4+4=$

$4+4+4+4+4+4=$

$4+4+4+4+4+4+4=$

$4+4+4+4+4+4+4+4=$

$4+4+4+4+4+4+4+4+4=$

$4+4+4+4+4+4+4+4+4+4=$

$4 \times 1 =$

$4 \times 2 =$

$4 \times 3 =$

$4 \times 4 =$

$4 \times 5 =$

$4 \times 6 =$

$4 \times 7 =$

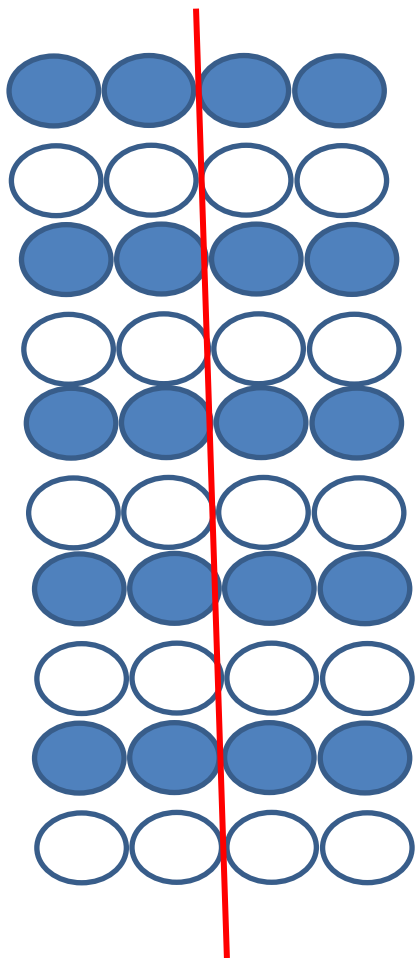
$4 \times 8 =$

$4 \times 9 =$

$4 \times 10 =$



Multiples of 4



$4 \times 1 =$

$4 \times 2 =$

$4 \times 3 =$

$4 \times 4 =$

$4 \times 5 =$

$4 \times 6 =$

$4 \times 7 =$

$4 \times 8 =$

$4 \times 9 =$

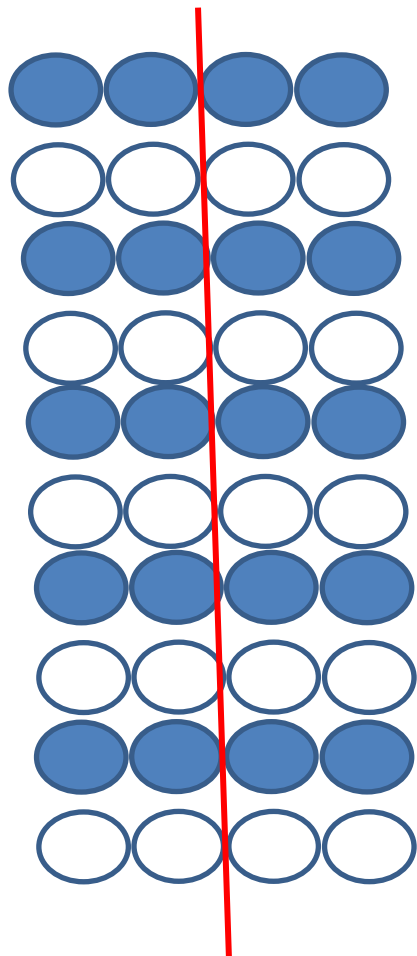
$4 \times 10 =$

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

A large empty rectangular box with a black border, intended for the student to write their preferred order for solving the multiplication facts.



How many groups of 4 in multiples of 4...?



4

8

12

16

20

24

28

32

36

40

$4 \div 4 =$

$8 \div 4 =$

$12 \div 4 =$

$16 \div 4 =$

$20 \div 4 =$

$24 \div 4 =$

$28 \div 4 =$

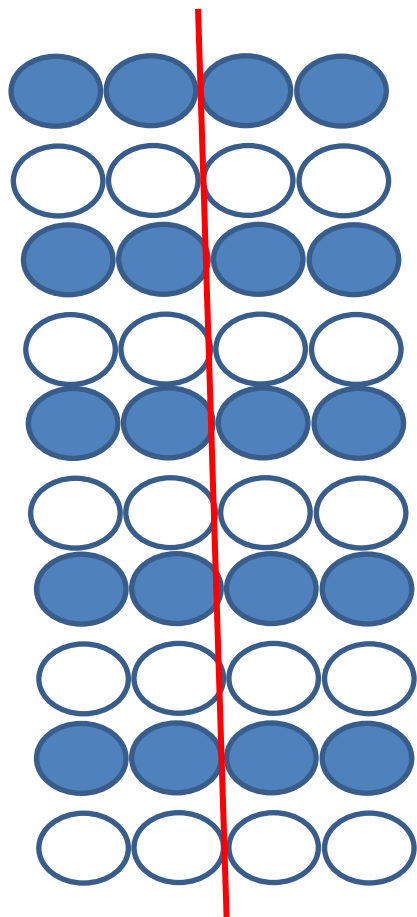
$32 \div 4 =$

$36 \div 4 =$

$40 \div 4 =$



How many groups of 4 in any number...?

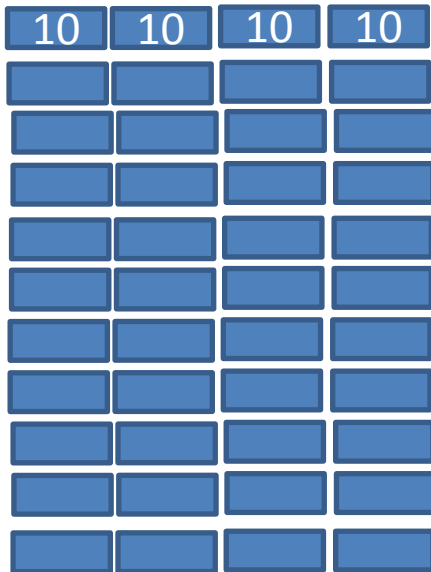
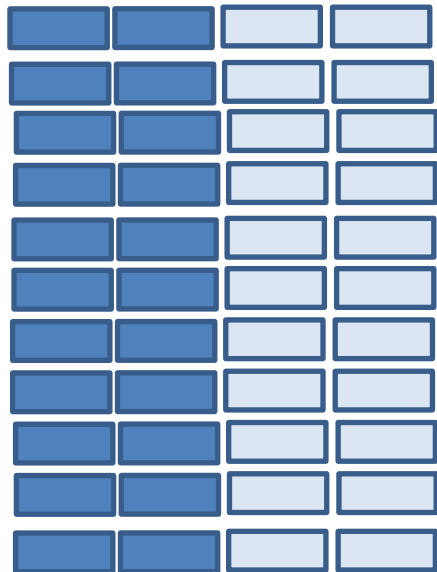


- 6
- 11
- 17
- 24
- 26
- 33
- 39
- 43
- 48
- 52

- $6 \div 4 =$
- $11 \div 4 =$
- $17 \div 4 =$
- $24 \div 4 =$
- $26 \div 4 =$
- $33 \div 4 =$
- $39 \div 4 =$
- $43 \div 4 =$
- $48 \div 4 =$
- $52 \div 4 =$



Multiples of 4, 40



$4 \times 1 =$

$40 \times 1 =$

$4 \times 2 =$

$40 \times 2 =$

$4 \times 3 =$

$40 \times 3 =$

$4 \times 4 =$

$40 \times 4 =$

$4 \times 5 =$

$40 \times 5 =$

$4 \times 6 =$

$40 \times 6 =$

$4 \times 7 =$

$40 \times 7 =$

$4 \times 8 =$

$40 \times 8 =$

$4 \times 9 =$

$40 \times 9 =$

$4 \times 10 =$

$40 \times 10 =$



Dividing into groups of 4, 40



$12 \div 4 =$

$4 \div 4 =$

$20 \div 4 =$

$16 \div 4 =$

$28 \div 4 =$

$24 \div 4 =$

$8 \div 4 =$

$40 \div 4 =$

$36 \div 4 =$

$32 \div 4 =$



$120 \div 40 =$

$40 \div 40 =$

$200 \div 40 =$

$160 \div 40 =$

$280 \div 40 =$

$240 \div 40 =$

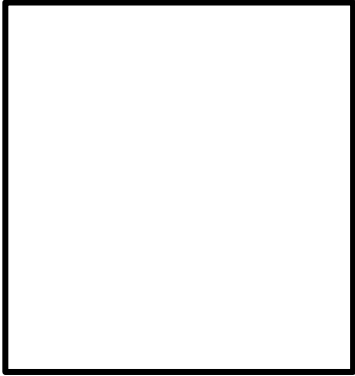
$80 \div 40 =$

$400 \div 40 =$

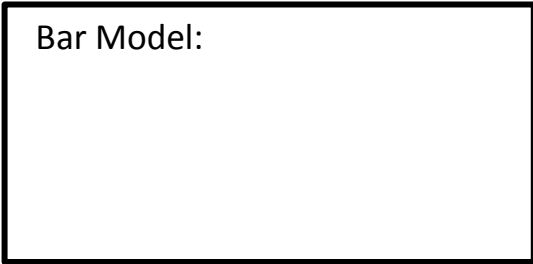
$360 \div 40 =$

$320 \div 40 =$

Array



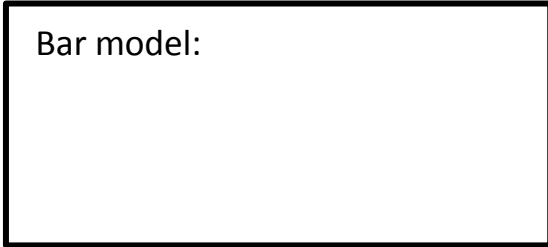
Bar Model:



Number line:



Bar model:

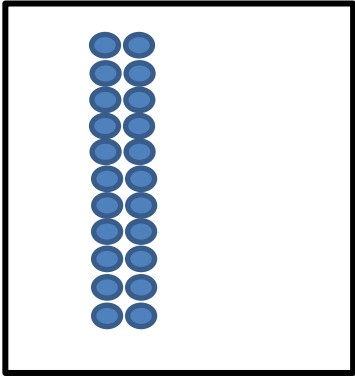


Number line:



$$4 \times 7 =$$

Array



$$200 \times 8 = 1600$$

$$800 \times 2 = 1600$$

$$0.2 \times 8 = 1.6$$

$$0.8 \times 2 = 1.6$$

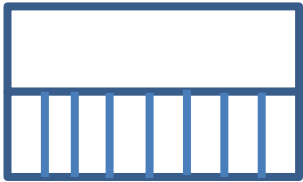
$$\frac{2}{10} \times 8 = \frac{16}{10} = 1 \frac{6}{10}$$

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

$$20 \times 8 = 160$$

$$80 \times 2 = 160$$

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:

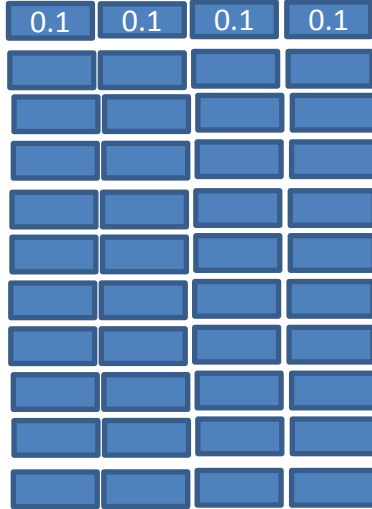
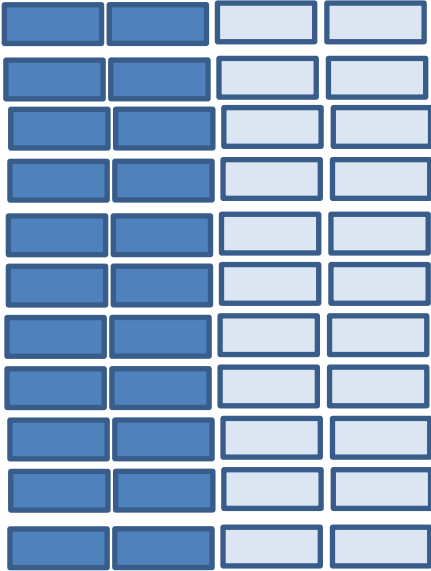


Number line:



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 4, 0.4



4 X1=

0.4 x1=

4 X2=

0.4 x2=

4 X3=

0.4 x3=

4 X4=

0.4 x4=

4 X5=

0.4 x5=

4 X6=

0.4 x6=

4 X7=

0.4 X7=

4 X8=

0.4 X8=

4 X9=

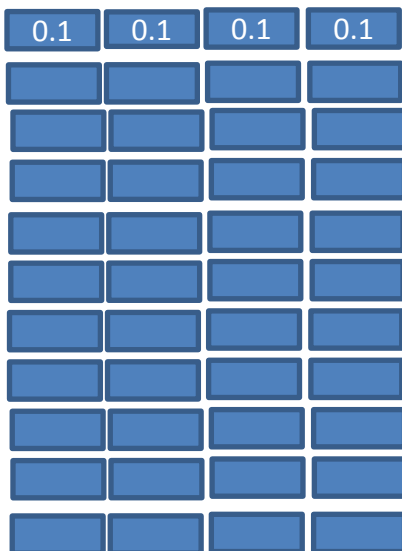
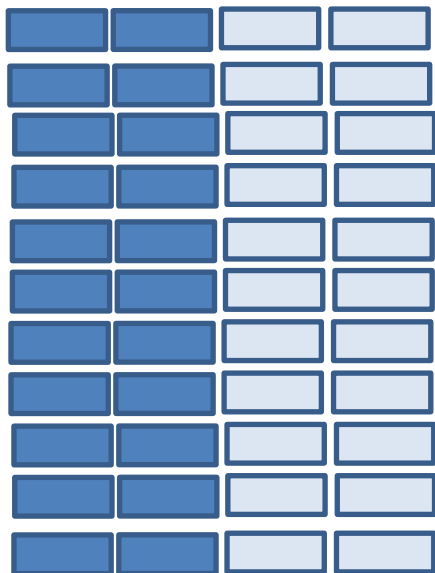
0.4 X9=

4 X10=

0.4 X10=



Multiples of $4/10$, 0.4



$$4/10 \times 1 =$$

$$4/10 \times 2 =$$

$$4/10 \times 3 =$$

$$4/10 \times 4 =$$

$$4/10 \times 5 =$$

$$4/10 \times 6 = 24/10 = 2\frac{4}{10}$$

$$4/10 \times 7 =$$

$$4/10 \times 8 =$$

$$4/10 \times 9 =$$

$$4/10 \times 10 =$$

$$0.4 \times 1 =$$

$$0.4 \times 2 =$$

$$0.4 \times 3 =$$

$$0.4 \times 4 =$$

$$0.4 \times 5 =$$

$$0.4 \times 6 =$$

$$0.4 \times 7 =$$

$$0.4 \times 8 =$$

$$0.4 \times 9 =$$

$$0.4 \times 10 =$$



Dividing into groups of 0.4, 4



$$1.2 \div 0.4 =$$
$$2.4 \div 0.4 =$$

$$0.4 \div 0.4 =$$
$$40 \div 0.4 =$$

$$2 \div 0.4 =$$
$$4 \div 0.4 =$$

$$1.6 \div 0.4 =$$
$$3.6 \div 0.4 =$$

$$2.8 \div 0.4 =$$
$$3.2 \div 0.4 =$$



$$12 \div 4 =$$
$$24 \div 4 =$$

$$4 \div 4 =$$
$$8 \div 4 =$$

$$20 \div 4 =$$
$$40 \div 4 =$$

$$16 \div 4 =$$
$$36 \div 4 =$$

$$28 \div 4 =$$
$$32 \div 4 =$$

Dividing into groups of 0.4, 4, 40,



$1.2 \div 0.4 =$	$0.4 \div 0.4 =$	$2 \div 0.4 =$	$1.6 \div 0.4 =$	$2.8 \div 0.4 =$
$2.4 \div 0.4 =$	$40 \div 0.4 =$	$4 \div 0.4 =$	$3.6 \div 0.4 =$	$3.2 \div 0.4 =$



$12 \div 4 =$	$4 \div 4 =$	$20 \div 4 =$	$16 \div 4 =$	$28 \div 4 =$
$24 \div 4 =$	$8 \div 4 =$	$40 \div 4 =$	$36 \div 4 =$	$32 \div 4 =$



$120 \div 40 =$	$40 \div 40 =$	$200 \div 40 =$	$160 \div 40 =$	$280 \div 40 =$
$240 \div 40 =$	$80 \div 40 =$	$400 \div 40 =$	$360 \div 40 =$	$320 \div 40 =$