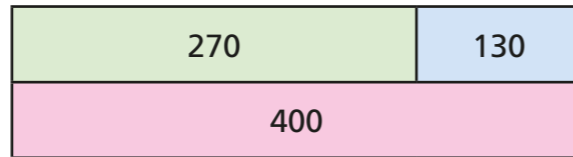


# Use known number facts to derive other facts

**1** Here is a bar model.  
Use the bar model to work out the calculations.



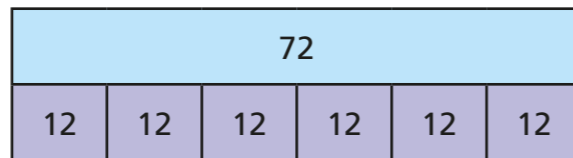
a)  $270 + 130 =$

c)  $400 - 270 =$

b)  $130 + 270 =$

d)  $400 - 130 =$

**2** Here is a bar model.  
Use the bar model to work out the calculations.



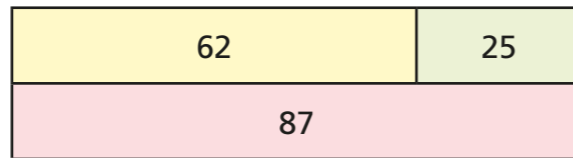
a)  $12 \times 6 =$

c)  $72 \div 6 =$

b)  $6 \times 12 =$

d)  $72 \div 12 =$

**3** Here is another bar model.  
Use the bar model to work out the calculations.



a)  $62 + 25 =$

b)  $870 - 250 =$

$620 + 250 =$

$870 - 620 =$

$6,200 + 2,500 =$

$8,700 - 6,200 =$

Discuss what you notice with a partner.

**4** Here is a multiplication fact.

$23 \times 15 = 345$

a) Use the fact to explain why  $230 \times 15 = 3,450$

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b) Use the fact to explain why  $230 \times 150 = 34,500$

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**5**

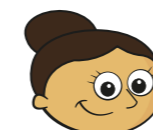


$272 + 187 = 459$

Teddy

Explain how each student can use Teddy's calculation to work out their problem.

a)



I want to work out  
 $273 + 187$

---



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b)



I want to work out  
 $177 + 272$

---



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c)



I want to work out  
460 - 187

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d) Use Teddy's calculations to work out these problems.

$2,720 + 1,870 = \boxed{\phantom{0000}}$

$269 + 187 = \boxed{\phantom{000}}$

$\boxed{\phantom{000}} + 185 = 459$

$469 - \boxed{\phantom{000}} = 172$

6 Here is a multiplication fact.

$17 \times 39 = 663$

Use the fact to work out the calculations.

a)  $170 \times 39 = \boxed{\phantom{0000}}$

e)  $1.7 \times 3.9 = \boxed{\phantom{000}}$

b)  $17 \times 390 = \boxed{\phantom{0000}}$

f)  $663 \div 17 = \boxed{\phantom{000}}$

c)  $1.7 \times 39 = \boxed{\phantom{000}}$

g)  $66,300 \div 1.7 = \boxed{\phantom{00000}}$

d)  $3.9 \times 17 = \boxed{\phantom{000}}$

h)  $66.3 \div 17 = \boxed{\phantom{000}}$

7 Mo works out a multiplication fact on his calculator.

$36 \times 45 = 1620$

a) Circle any calculations that will give the same answer.

$360 \times 45$

$45 \times 36$

$3.6 \times 4.5$

$3.6 \times 450$

$450 \times 360$

$360 \times 4.5$

b) Write another related calculation that will give the same answer.

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8 Complete each calculation in three different ways.

$72 \times 11 = 792$

a)  $\boxed{\phantom{000}} \times \boxed{\phantom{000}} = 792$

c)  $\boxed{\phantom{000}} \div \boxed{\phantom{000}} = 7.2$

$\boxed{\phantom{000}} \times \boxed{\phantom{000}} = 792$

$\boxed{\phantom{000}} \div \boxed{\phantom{000}} = 7.2$

$\boxed{\phantom{000}} \times \boxed{\phantom{000}} = 792$

$\boxed{\phantom{000}} \div \boxed{\phantom{000}} = 7.2$

b)  $\boxed{\phantom{000}} \times \boxed{\phantom{000}} = 7.92$

d)  $\boxed{\phantom{000}} \div \boxed{\phantom{000}} = 110$

$\boxed{\phantom{000}} \times \boxed{\phantom{000}} = 7.92$

$\boxed{\phantom{000}} \div \boxed{\phantom{000}} = 110$

$\boxed{\phantom{000}} \times \boxed{\phantom{000}} = 7.92$

$\boxed{\phantom{000}} \div \boxed{\phantom{000}} = 110$

