



Now that you can do some multiplication sums in your head, we are going to see how you can write down more difficult ones.

Always begin with an estimate of the answer.

Let's say we want to multiply **27** by **5**.

First, we estimate the answer: 27×5 is approximately $30 \times 5 = 150$

Now, let's do the sum. First we split the first number into tens and units and then we multiply each part by **5**. We can do this in a table:

	20	7
5	100	35

Answer is $100 + 35 = 135$

Let's try another one. Multiply 48×6

Estimate: 48×6 is approximately $50 \times 6 = 300$

Put the numbers in a table and work out the answer.

	40	8
6	240	48

Answer is $240 + 48 = 288$

Now try these. Don't forget the estimate.

a. 42×4 b. 35×2 c. 23×7 d. 46×5

e. 28×4 f. 62×8 g. 59×9 h. 66×6

Here is another method:

Let's say we want to multiply **34** by **6**.

First, we estimate the answer: 34×6 is approximately $30 \times 6 = 180$

Now, let's do the sum. First we split the first number into tens and units and then we multiply each part by **6**.

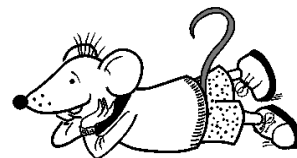
$$34 \times 6 = (30 + 4) \times 6$$

Then we multiply the **30** by **6** and the **4** by **6** :

$$\text{So: } 34 \times 6 = (30 + 4) \times 6 = 180 + 24$$

$$\text{So: } 34 \times 6 = \underline{204}$$

Let's try another one!

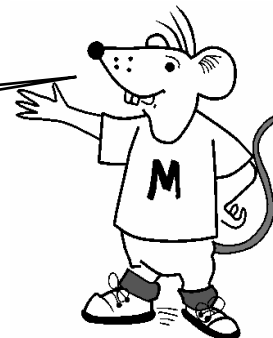


Multiply 42 by 7. Estimate: $40 \times 7 = 280$

$$42 \times 7 = (40 + 2) \times 7 = 280 + 14$$

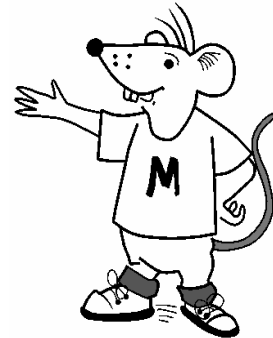
$$\text{So: } 42 \times 7 = 294$$

Quite easy, really!!!



Let's try one together.

You fill in the boxes.



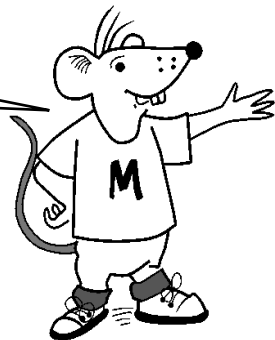
Multiply 26 by 5. Estimate: $30 \times 5 = 150$

$$26 \times 5 = (\square + 6) \times 5 = \square + 30$$

So: $26 \times 5 = \square$

Ready for another.

You fill in all the boxes this time.



Multiply 38 by 5. Estimate: $40 \times 5 = 200$

$$38 \times 5 = (\square + \square) \times \square = \square + \square$$

So: $38 \times 5 = \square$

Now try these on your own. Don't forget to do an estimate first.



a. 25×5 b. 41×6 c. 36×4 d. 53×3

e. 64×2 f. 57×3 g. 22×8 h. 45×9

We can also set these sums out vertically, like this:



Let's multiply 32 by 6. Estimate: $30 \times 6 = 180$

$$\begin{array}{r} 32 \\ \times 6 \\ \hline 180 \\ 12 \\ \hline 192 \end{array} \quad \begin{array}{l} (30 \times 6) \\ (2 \times 6) \end{array}$$

So the answer is 192

Let's try another one.

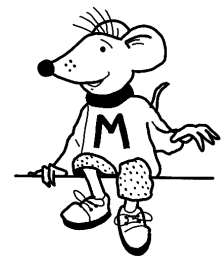


Let's multiply 53 by 4. Estimate: $50 \times 4 = 200$

$$\begin{array}{r} 53 \\ \times 4 \\ \hline 200 \\ 12 \\ \hline 212 \end{array} \quad \begin{array}{l} (50 \times 4) \\ (3 \times 4) \end{array}$$

So the answer is 212

Now try these on your own. Don't forget to do an estimate.

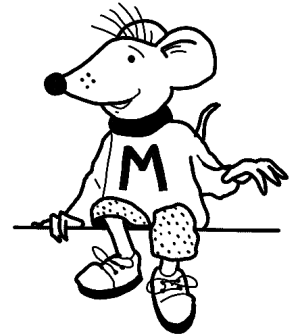


a. 25×6 b. 34×7 c. 18×5 d. 44×7

e. 62×4 f. 74×2 g. 39×5 h. 26×5

Here is a slightly different method.

Lay the sum out vertically again and carry any tens into the tens column, like this:



Let's multiply 35 by 5. Estimate: $40 \times 5 = 200$

$$\begin{array}{r} 35 \\ \times 5 \\ \hline 175 \\ \underline{} \\ 2 \end{array}$$

5×5 is 25, so we put the 5 in the units column and carry the 2 tens into the tens column.

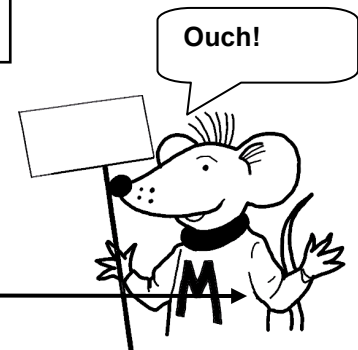
So the answer is 175

Let's multiply 24 by 7. Estimate: $20 \times 7 = 140$

$$\begin{array}{r} 24 \\ \times 7 \\ \hline 168 \\ \underline{} \\ 2 \end{array}$$

4×7 is 28, so we put the 8 in the units column and carry the 2 tens into the tens column.

So the answer is 168



a. 16×4 b. 24×7 c. 33×7 d. 61×4

e. 55×7 f. 39×4 g. 75×4 h. 87×3

Answers**Page 1**

- a. 168 b. 70 c. 161 d. 230
e. 112 f. 496 g. 531 h. 396

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$$26 \times 5 = (20 + 6) \times 5 = 100 + 30$$

So: $26 \times 5 = 130$

$$38 \times 5 = (30 + 8) \times 5 = 150 + 40$$

So: $38 \times 5 = 190$

- a. 125 b. 246 c. 144 d. 159
e. 128 f. 171 g. 176 h. 405

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- a. 150 b. 238 c. 90 d. 308
e. 248 f. 148 g. 195 h. 130

Page 5

- a. 64 b. 168 c. 231 d. 244
e. 385 f. 156 g. 300 h. 261