



Learn a new puzzle

Missing Digits

Write the missing digits. Work one row at a time.

Trick: Row by row

1

$$\begin{array}{r} \begin{array}{|c|c|} \hline 2 & 3 \\ \hline \end{array} \\ \times \begin{array}{|c|c|} \hline 1 & 4 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|} \hline 9 & 2 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|} \hline 2 & & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 3 & & 2 \\ \hline \end{array} \end{array}$$

Ones row: $23 \times 4 = 92$.

2

$$\begin{array}{r} \begin{array}{|c|c|} \hline 2 & 3 \\ \hline \end{array} \\ \times \begin{array}{|c|c|} \hline 1 & 4 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|} \hline 9 & 2 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|} \hline 2 & 3 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 3 & & 2 \\ \hline \end{array} \end{array}$$

Tens row: $23 \times 10 = 230$. It always ends in 0.

3

$$\begin{array}{r} \begin{array}{|c|c|} \hline 2 & 3 \\ \hline \end{array} \\ \times \begin{array}{|c|c|} \hline 1 & 4 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|} \hline 9 & 2 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|} \hline 2 & 3 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 3 & 2 & 2 \\ \hline \end{array} \end{array}$$

Add the rows: $92 + 230 = 322$.**Try it**

a

$$\begin{array}{r} \begin{array}{|c|c|} \hline 7 & 8 \\ \hline \end{array} \\ \times \begin{array}{|c|c|} \hline 8 & 6 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 4 & 6 & 8 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline & 2 & 4 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 6 & & 0 & \\ \hline \end{array} \end{array}$$

b

$$\begin{array}{r} \begin{array}{|c|c|} \hline 5 & 6 \\ \hline \end{array} \\ \times \begin{array}{|c|c|} \hline 4 & 4 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 2 & 2 & \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 2 & 2 & 4 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline & 4 & 6 & \\ \hline \end{array} \end{array}$$

The answer is with the other answers.

Talk about it: Ask: Why does the tens row end in 0?

**1 Missing Digits** Write the missing digits so the multiplication is right.

a

$$\begin{array}{r} 66 \\ \times 97 \\ \hline 62 \\ + 9 0 \\ \hline 6402 \end{array}$$

b

$$\begin{array}{r} 44 \\ \times 47 \\ \hline 08 \\ + 7 0 \\ \hline 0 8 \end{array}$$

2 Missing Digits Write the missing digits so the multiplication is right.

a

$$\begin{array}{r} 51 \\ \times 28 \\ \hline 8 \\ + 0 0 \\ \hline 1428 \end{array}$$

b

$$\begin{array}{r} 22 \\ \times 37 \\ \hline 15 \\ + 660 \\ \hline 1 \end{array}$$

3 Missing Digits Write the missing digits so the multiplication is right.

a

$$\begin{array}{r} 43 \\ \times 82 \\ \hline 6 \\ + 3 0 \\ \hline 3526 \end{array}$$

b

$$\begin{array}{r} 54 \\ \times 53 \\ \hline 62 \\ + 2 00 \\ \hline 2 2 \end{array}$$

**4 Missing Digits** Write the missing digits so the multiplication is right.

a

$$\begin{array}{r} 63 \\ \times 44 \\ \hline 52 \\ + 520 \\ \hline 27 \end{array}$$

b

$$\begin{array}{r} 27 \\ \times 34 \\ \hline 8 \\ + 10 \\ \hline 18 \end{array}$$

5 Missing Digits Write the missing digits so the multiplication is right.

a

$$\begin{array}{r} \\ \times 98 \\ \hline 44 \\ + 50 \\ \hline 5684 \end{array}$$

b

$$\begin{array}{r} 4 \\ \times 9 \\ \hline 46 \\ + 60 \\ \hline 2646 \end{array}$$

6 Missing Digits Write the missing digits so the multiplication is right.

a

$$\begin{array}{r} 7 \\ \times 2 \\ \hline 702 \\ + 10 \\ \hline 226 \end{array}$$

b

$$\begin{array}{r} 67 \\ \times 5 \\ \hline 33 \\ + 130 \\ \hline 165 \end{array}$$

**7 Missing Digits** Write the missing digits so the multiplication is right.

a

$$\begin{array}{r} \boxed{4} \\ \times \boxed{2} \boxed{9} \\ \hline \boxed{8} \boxed{6} \\ + \boxed{0} \boxed{8} \boxed{0} \\ \hline \boxed{5} \boxed{6} \boxed{6} \end{array}$$

b

$$\begin{array}{r} \boxed{3} \\ \times \boxed{8} \boxed{4} \\ \hline \boxed{7} \boxed{2} \\ + \boxed{7} \boxed{4} \boxed{4} \boxed{0} \\ \hline \boxed{1} \boxed{2} \end{array}$$

8 Missing Digits Write the missing digits so the division is right. There is nothing left over.

a

$$\begin{array}{r} \boxed{6} \\ \boxed{5} \overline{) \boxed{3} \boxed{1} \boxed{2} \boxed{5}} \end{array}$$

b

$$\begin{array}{r} \boxed{7} \boxed{7} \boxed{3} \\ \boxed{7} \overline{) \boxed{5} \boxed{1} } \end{array}$$

9 Missing Digits Write the missing digits so the division is right. There is nothing left over.

a

$$\begin{array}{r} \boxed{5} \boxed{1} \boxed{9} \\ \boxed{3} \overline{) \boxed{5} \boxed{7}} \end{array}$$

b

$$\begin{array}{r} \boxed{2} \boxed{6} \\ \boxed{5} \overline{) \boxed{3} \boxed{8} \boxed{0}} \end{array}$$

10 Missing Digits Write the missing digits so the math is right. Divisions leave nothing over.

a

$$\begin{array}{r} \boxed{7} \boxed{4} \boxed{3} \\ \times \boxed{6} \\ \hline \boxed{2} \boxed{2} \boxed{9} \\ + \boxed{4} \boxed{8} \boxed{0} \\ \hline \boxed{4} \boxed{6} \boxed{8} \boxed{9} \end{array}$$

b

$$\begin{array}{r} \boxed{6} \boxed{3} \\ \boxed{2} \boxed{4} \overline{) \boxed{2}} \end{array}$$



Answers

For grown-ups. Cut off or keep this page aside until the puzzles are done.

Learn • Missing Digits

a

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 7 & 8 \\ \hline 8 & 6 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 4 & 6 & 8 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 6 & 2 & 4 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 6 & 7 & 0 & 8 \\ \hline \end{array} \end{array}$$

b

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 5 & 6 \\ \hline 4 & 4 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 2 & 2 & 4 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 2 & 2 & 4 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 2 & 4 & 6 & 4 \\ \hline \end{array} \end{array}$$

#1

a

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 6 & 6 \\ \hline 9 & 7 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 4 & 6 & 2 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 5 & 9 & 4 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 6 & 4 & 0 & 2 \\ \hline \end{array} \end{array}$$

b

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 4 & 4 \\ \hline 4 & 7 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 3 & 0 & 8 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 1 & 7 & 6 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 2 & 0 & 6 & 8 \\ \hline \end{array} \end{array}$$

a: $66 \times 97 = 6402$: $66 \times 7 = 462$, $66 \times 90 = 5940$, and $462 + 5940 = 6402$. b: $44 \times 47 = 2068$: $44 \times 7 = 308$, $44 \times 40 = 1760$, and $308 + 1760 = 2068$.

#2

a

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 5 & 1 \\ \hline 2 & 8 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 4 & 0 & 8 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 1 & 0 & 2 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 1 & 4 & 2 & 8 \\ \hline \end{array} \end{array}$$

b

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 2 & 2 \\ \hline 3 & 7 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 1 & 5 & 4 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 6 & 6 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 8 & 1 & 4 \\ \hline \end{array} \end{array}$$

a: $51 \times 28 = 1428$: $51 \times 8 = 408$, $51 \times 20 = 1020$, and $408 + 1020 = 1428$. b: $22 \times 37 = 814$: $22 \times 7 = 154$, $22 \times 30 = 660$, and $154 + 660 = 814$.

#3

a

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 4 & 3 \\ \hline 8 & 2 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|} \hline 8 & 6 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 3 & 4 & 4 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 3 & 5 & 2 & 6 \\ \hline \end{array} \end{array}$$

b

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 5 & 4 \\ \hline 5 & 3 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 1 & 6 & 2 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 2 & 7 & 0 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 2 & 8 & 6 & 2 \\ \hline \end{array} \end{array}$$

a: $43 \times 82 = 3526$: $43 \times 2 = 86$, $43 \times 80 = 3440$, and $86 + 3440 = 3526$. b: $54 \times 53 = 2862$: $54 \times 3 = 162$, $54 \times 50 = 2700$, and $162 + 2700 = 2862$.

#4

a

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 6 & 3 \\ \hline 4 & 4 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 2 & 5 & 2 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 2 & 5 & 2 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 2 & 7 & 7 & 2 \\ \hline \end{array} \end{array}$$

b

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 2 & 7 \\ \hline 3 & 4 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 1 & 0 & 8 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 8 & 1 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 9 & 1 & 8 \\ \hline \end{array} \end{array}$$

a: $63 \times 44 = 2772$: $63 \times 4 = 252$, $63 \times 40 = 2520$, and $252 + 2520 = 2772$. b: $27 \times 34 = 918$: $27 \times 4 = 108$, $27 \times 30 = 810$, and $108 + 810 = 918$.

#5

a

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 5 & 8 \\ \hline 9 & 8 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 4 & 6 & 4 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 5 & 2 & 2 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 5 & 6 & 8 & 4 \\ \hline \end{array} \end{array}$$

b

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 5 & 4 \\ \hline 4 & 9 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 4 & 8 & 6 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 2 & 1 & 6 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 2 & 6 & 4 & 6 \\ \hline \end{array} \end{array}$$

a: $58 \times 98 = 5684$: $58 \times 8 = 464$, $58 \times 90 = 5220$, and $464 + 5220 = 5684$. b: $54 \times 49 = 2646$: $54 \times 9 = 486$, $54 \times 40 = 2160$, and $486 + 2160 = 2646$.

#6

a

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 7 & 8 \\ \hline 2 & 9 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 7 & 0 & 2 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 1 & 5 & 6 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 2 & 2 & 6 & 2 \\ \hline \end{array} \end{array}$$

b

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 6 & 7 \\ \hline 2 & 5 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 3 & 3 & 5 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 1 & 3 & 4 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 1 & 6 & 7 & 5 \\ \hline \end{array} \end{array}$$

a: $78 \times 29 = 2262$: $78 \times 9 = 702$, $78 \times 20 = 1560$, and $702 + 1560 = 2262$. b: $67 \times 25 = 1675$: $67 \times 5 = 335$, $67 \times 20 = 1340$, and $335 + 1340 = 1675$.

#7

a

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 5 & 4 \\ \hline 2 & 9 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 4 & 8 & 6 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 1 & 0 & 8 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 1 & 5 & 6 & 6 \\ \hline \end{array} \end{array}$$

b

$$\begin{array}{r} \times \quad \begin{array}{|c|c|} \hline 9 & 3 \\ \hline 8 & 4 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|} \hline 3 & 7 & 2 \\ \hline \end{array} \\ + \begin{array}{|c|c|c|c|} \hline 7 & 4 & 4 & 0 \\ \hline \end{array} \\ \hline \begin{array}{|c|c|c|c|} \hline 7 & 8 & 1 & 2 \\ \hline \end{array} \end{array}$$

a: $54 \times 29 = 1566$: $54 \times 9 = 486$, $54 \times 20 = 1080$, and $486 + 1080 = 1566$. b: $93 \times 84 = 7812$: $93 \times 4 = 372$, $93 \times 80 = 7440$, and $372 + 7440 = 7812$.

#8

a

$$\begin{array}{r} \begin{array}{|c|c|c|c|} \hline 6 & 2 & 5 \\ \hline \end{array} \\ \overline{) 5 \begin{array}{|c|c|c|c|} \hline 3 & 1 & 2 & 5 \\ \hline \end{array}} \end{array}$$

b

$$\begin{array}{r} \begin{array}{|c|c|c|} \hline 7 & 7 & 3 \\ \hline \end{array} \\ \overline{) 7 \begin{array}{|c|c|c|c|} \hline 5 & 4 & 1 & 1 \\ \hline \end{array}} \end{array}$$

a: $3125 \div 5 = 625$. Check by multiplying: $5 \times 625 = 3125$. b: $5411 \div 7 = 773$. Check by multiplying: $7 \times 773 = 5411$.



Answers

 For grown-ups. Cut off or keep this page aside until the puzzles are done.

#9

a
$$\begin{array}{r} 519 \\ 3 \overline{)1557} \end{array}$$

b
$$\begin{array}{r} 276 \\ 5 \overline{)1380} \end{array}$$

a: $1557 \div 3 = 519$. Check by multiplying: $3 \times 519 = 1557$. b: $1380 \div 5 = 276$. Check by multiplying: $5 \times 276 = 1380$.

#10

a
$$\begin{array}{r} 743 \\ 63 \\ \times \\ \hline 2229 \\ + 44580 \\ \hline 46809 \end{array}$$

b
$$\begin{array}{r} 63 \\ 24 \overline{)1512} \end{array}$$

a: $743 \times 63 = 46809$: $743 \times 3 = 2229$, $743 \times 60 = 44580$, and $2229 + 44580 = 46809$. b: $1512 \div 24 = 63$. Check by multiplying: $24 \times 63 = 1512$.