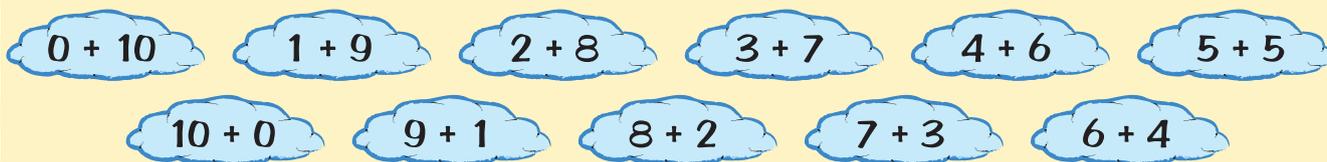


Unit 13 Adding 2-digit numbers

Adding to 20

Addition facts that make 10 are important.



Use these to help you to add to 20.

$$7 + 4 = \square$$

5 6 7 8 9 10 11 12

$$7 + 4 = 7 + 3 + 1 = 10 + 1 = 11$$

$$8 + 6 = \square$$

7 8 9 10 11 12 13 14 15

$$8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$$



1 Copy and complete.

- a) $6 + \square = 10$ b) $9 + \square = 10$ c) $7 + \square = 10$
 d) $4 + \square = 10$ e) $2 + \square = 10$ f) $5 + \square = 10$
 g) $0 + \square = 10$ h) $3 + \square = 10$

2 Add these. Use the number lines to help. Start at the largest number and draw the jumps.

a) $10 + 6$
 total \rightarrow \square

8 9 10 11 12 13 14 15 16 17 18 19 20

b) $11 + 4$
 total \rightarrow \square

8 9 10 11 12 13 14 15 16 17 18 19 20

c) $12 + 2$
 total \rightarrow \square

8 9 10 11 12 13 14 15 16 17 18 19 20

d) $15 + 4$

total \rightarrow



e) $13 + 3$

total \rightarrow



f) $14 + 5$

total \rightarrow



3 Use the number lines to help you answer these.

a) $8 + 5 =$



b) $9 + 7 =$



c) $8 + 4 =$



d) $6 + 5 =$

e) $9 + 4 =$



f) $7 + 7 =$



Try this

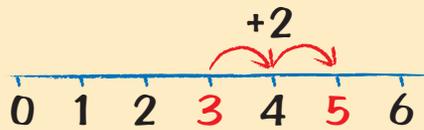
Find different ways to complete this number sentence.

+ = 15

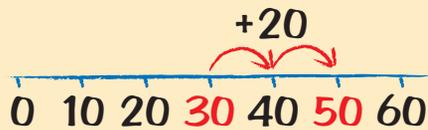
Adding tens

If you can add numbers to ten, adding tens is easy.

Look at this example.



$$3 + 2 = 5$$



$$3 \text{ tens} + 2 \text{ tens} = 5 \text{ tens}$$

$$30 + 20 = 50$$

1 Complete these.

a) $3 + 1 = \square$

$30 + 10 = \square$

c) $2 + 3 = \square$

$20 + 30 = \square$

e) $4 + 3 = \square$

$40 + 30 = \square$

g) $3 + 5 = \square$

$30 + 50 = \square$

i) $3 + 3 = \square$

$30 + 30 = \square$

k) $4 + 4 = \square$

$40 + 40 = \square$

b) $4 + 2 = \square$

$40 + 20 = \square$

d) $2 + 2 = \square$

$20 + 20 = \square$

f) $5 + 1 = \square$

$50 + 10 = \square$

h) $4 + 1 = \square$

$40 + 10 = \square$

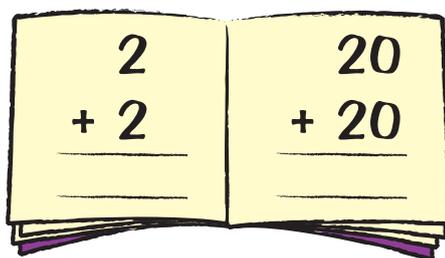
j) $5 + 2 = \square$

$50 + 20 = \square$

l) $5 + 4 = \square$

$50 + 40 = \square$

2 Answer these.



a)
$$\begin{array}{r} 2 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 20 \\ + 20 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 1 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ + 40 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 5 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 50 \\ + 30 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 4 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ + 20 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 3 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 30 \\ + 60 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 6 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 60 \\ + 20 \\ \hline \end{array}$$

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3 Answer these.

a)
$$\begin{array}{r} 30 \\ + 20 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 30 \\ + 30 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 30 \\ + 50 \\ \hline \end{array}$$

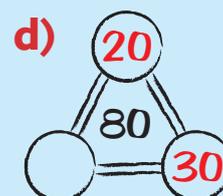
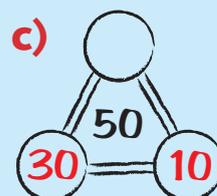
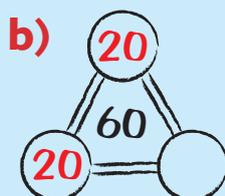
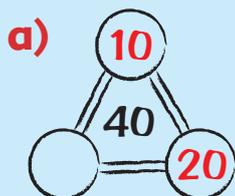
d)
$$\begin{array}{r} 30 \\ + 60 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 20 \\ + 40 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 40 \\ + 50 \\ \hline \end{array}$$

Try this

The numbers at the corners add up to the number in the middle. Write the missing numbers.



TU + U (no renaming)

Example 1

$$12 + 5 = \square \quad \text{Break up the 12 into tens and units.}$$

$$10 + 2 + 5 = \square$$

$$10 + 7 = 17$$

Example 2

$$\begin{array}{r} \text{T U} \\ 23 \\ + \quad 4 \\ \hline \\ \hline \end{array}$$

Step 1 Add the units.

$$\begin{array}{r} \text{T U} \\ 23 \\ + \quad 4 \\ \hline \quad 7 \\ \hline \end{array}$$

Step 2 Write in the tens.

$$\begin{array}{r} \text{T U} \\ 23 \\ + \quad 4 \\ \hline 27 \\ \hline \end{array}$$

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1 Complete these.

a) $15 + 3 = \square$

$$10 + 5 + 3 = \square$$

b) $21 + 3 = \square$

$$20 + 1 + 3 = \square$$

c) $34 + 5 = \square$

$$30 + 4 + 5 = \square$$

d) $23 + 4 = \square$

$$20 + 3 + 4 = \square$$

e) $35 + 2 = \square$

$$30 + 5 + 2 = \square$$

f) $43 + 6 = \square$

$$40 + 3 + 6 = \square$$

2 Answer these.

a) $36 + 2 = \square$

b) $25 + 1 = \square$

c) $51 + 3 = \square$

d) $65 + 4 = \square$

e) $24 + 4 = \square$

f) $82 + 3 = \square$

g) $61 + 8 = \square$

h) $45 + 2 = \square$

3 Complete these.

a)
$$\begin{array}{r} 25 \\ + 4 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 44 \\ + 2 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 53 \\ + 5 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 31 \\ + 7 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 45 \\ + 3 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 62 \\ + 5 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 91 \\ + 7 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 84 \\ + 3 \\ \hline \end{array}$$



4 Complete these addition grids.

a)

+	21	35	13
4			
2		37	
3			16

b)

+	32	24	20
3			23
5	37		
4			

TU + Tens

Example 1

$$30 + 13 = \square$$

Break up the 13 into tens and units.

$$30 + 10 + 3 = \square$$

$$40 + 3 = 43$$

Example 2

$$\begin{array}{r} \text{T U} \\ 20 \\ + 34 \\ \hline \end{array}$$

1 Add the units.

$$\begin{array}{r} \text{T U} \\ 20 \\ + 34 \\ \hline 4 \\ \hline \end{array}$$

2 Add the tens.

$$\begin{array}{r} \text{T U} \\ 20 \\ + 34 \\ \hline 54 \\ \hline \end{array}$$

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1 Copy and complete.

a) $20 + 15 = \square$

$$20 + 10 + 5 = \square$$

b) $40 + 11 = \square$

$$40 + 10 + 1 = \square$$

c) $30 + 18 = \square$

$$30 + 10 + 8 = \square$$

d) $40 + 23 = \square$

$$40 + 20 + 3 = \square$$

e) $20 + 35 = \square$

$$20 + 30 + 5 = \square$$

f) $30 + 46 = \square$

$$30 + 40 + 6 = \square$$

2 Write the answers.

$$\begin{array}{r} \text{a)} \quad 20 \\ + \quad 15 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b)} \quad 30 \\ + \quad 12 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c)} \quad 30 \\ + \quad 24 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d)} \quad 20 \\ + \quad 26 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e)} \quad 40 \\ + \quad 31 \\ \hline \end{array}$$

$$\begin{array}{r} \text{f)} \quad 50 \\ + \quad 27 \\ \hline \end{array}$$

3 Answer these. Use the yellow spaces for working out.

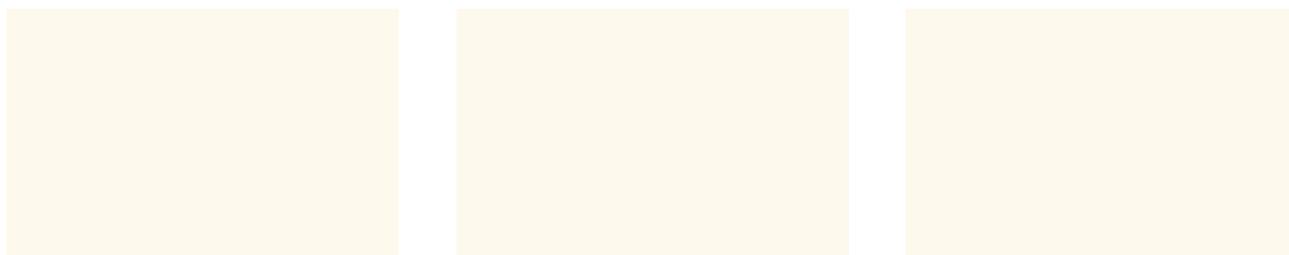
a) $40 + 31 = \square$ **b)** $30 + 25 = \square$ **c)** $50 + 11 = \square$



d) $20 + 64 = \square$ **e)** $27 + 40 = \square$ **f)** $32 + 30 = \square$



g) $61 + 20 = \square$ **h)** $42 + 50 = \square$ **i)** $53 + 30 = \square$



TU + TU (no renaming)

Example 1

$$14 + 23 = \square$$

Try to work this out in your head.
Add the units and the tens.

Units: $4 + 3 = 7$

Tens: $10 + 20 = 30$

Added together: $30 + 7 = 37$

$$14 + 23 = 37$$

Example 2

$$\begin{array}{r} \text{T U} \\ 2 \ 5 \\ + \ 3 \ 2 \\ \hline \end{array}$$



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1 Add the units.

$$\begin{array}{r} \text{T U} \\ 2 \ 5 \\ + \ 3 \ 2 \\ \hline \end{array}$$

2 Add the tens.

$$\begin{array}{r} \text{T U} \\ 2 \ 5 \\ + \ 3 \ 2 \\ \hline \end{array}$$

1 Write the answers.

a)
$$\begin{array}{r} 2 \ 3 \\ + \ 1 \ 1 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 3 \ 1 \\ + \ 1 \ 4 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 2 \ 6 \\ + \ 2 \ 2 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 3 \ 2 \\ + \ 1 \ 6 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 4 \ 6 \\ + \ 3 \ 2 \\ \hline \end{array}$$

2 Answer these.

a) $23 + 11 = \square$

b) $15 + 22 = \square$

c) $31 + 16 = \square$

d) $22 + 14 = \square$

e) $27 + 21 = \square$

f) $32 + 13 = \square$

g) $21 + 28 = \square$

h) $26 + 12 = \square$



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Assessment

23 30 12 42 40 33 50

Use any of the numbers above to complete these.

a) $\square + \square = 70$

b) $\square + \square = 63$

c) $\square + \square = 82$

d) $\square + \square = 65$