## Adding to 20

Addition facts that make 10 are important.

| 0 + 10 | 1 + 9 | 2 + 8 | 3 + 7 | 4 + 6 | 5 + 5 |
|--------|-------|-------|-------|-------|-------|
| 10 + 0 | 9 + 1 | 8 + 2 | 7 + 3 | 6 + 4 | |
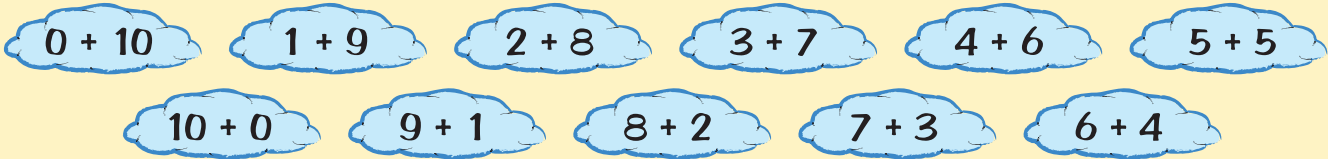
Use these to help you to add to 20.

7 + 4 = ☐     5  6  7  8  9  10  11  12

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

8 + 6 = ☐     7  8  9  10  11  12  13  14  15

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

**1** Copy and complete.

**a)** 6 + ☐ = 10    **b)** 9 + ☐ = 10    **c)** 7 + ☐ = 10

**d)** 4 + ☐ = 10    **e)** 2 + ☐ = 10    **f)** 5 + ☐ = 10

**g)** 0 + ☐ = 10    **h)** 3 + ☐ = 10

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

**a)** 10 + 6

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

**b)** 11 + 4

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

**c)** 12 + 2

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

**d)** 15 + 4

total ➜ ☐

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

**e)** 13 + 3

total ➜ ☐

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

**f)** 14 + 5

total ➜ ☐

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

**3** Use the number lines to help you answer these.

**a)** 8 + 5 = ☐

7  8  9  10  11  12  13  14

**b)** 9 + 7 = ☐

8  9  10  11  12  13  14  15  16  17

**c)** 8 + 4 = ☐

**d)** 6 + 5 = ☐

7  8  9  10  11  12  13

**e)** 9 + 4 = ☐

8  9  10  11  12  13  14

**f)** 7 + 7 = ☐

6  7  8  9  10  11  12  13  14  15

**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.

$$+2$$

0 1 2 3 4 5 6

$$3 + 2 = 5$$

$$+20$$

0 10 20 30 40 50 60
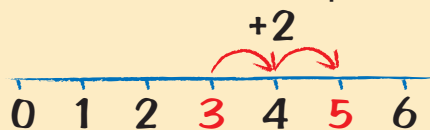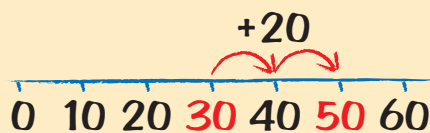
3 tens + 2 tens = 5 tens
$$30 + 20 = 50$$

**1** Complete these.

a)  $3 + 1 =$ ☐

   $30 + 10 =$ ☐

b)  $4 + 2 =$ ☐

   $40 + 20 =$ ☐

c)  $2 + 3 =$ ☐

   $20 + 30 =$ ☐

d)  $2 + 2 =$ ☐

   $20 + 20 =$ ☐

e)  $4 + 3 =$ ☐

   $40 + 30 =$ ☐

f)  $5 + 1 =$ ☐

   $50 + 10 =$ ☐

g)  $3 + 5 =$ ☐

   $30 + 50 =$ ☐

h)  $4 + 1 =$ ☐

   $40 + 10 =$ ☐

i)  $3 + 3 =$ ☐

   $30 + 30 =$ ☐

j)  $5 + 2 =$ ☐

   $50 + 20 =$ ☐

k)  $4 + 4 =$ ☐

   $40 + 40 =$ ☐

l)  $5 + 4 =$ ☐

   $50 + 40 =$ ☐

**2** Answer these.

$$\begin{array}{r} 2 \\ + \ 2 \\ \hline \end{array} \qquad \begin{array}{r} 20 \\ + \ 20 \\ \hline \end{array}$$
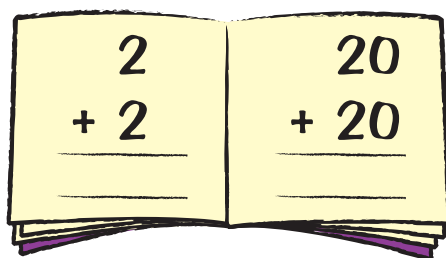
**a)**
$$\begin{array}{r} 2 \\ + \ 2 \\ \hline \end{array} \qquad \begin{array}{r} 2\ 0 \\ + \ 2\ 0 \\ \hline \end{array}$$

**b)**
$$\begin{array}{r} 1 \\ + \ 4 \\ \hline \end{array} \qquad \begin{array}{r} 1\ 0 \\ + \ 4\ 0 \\ \hline \end{array}$$

**c)**
$$\begin{array}{r} 5 \\ + \ 3 \\ \hline \end{array} \qquad \begin{array}{r} 5\ 0 \\ + \ 3\ 0 \\ \hline \end{array}$$

**d)**
$$\begin{array}{r} 4 \\ + \ 2 \\ \hline \end{array} \qquad \begin{array}{r} 4\ 0 \\ + \ 2\ 0 \\ \hline \end{array}$$
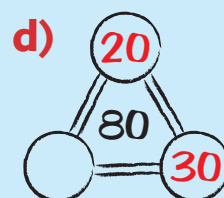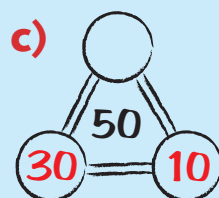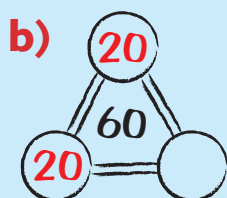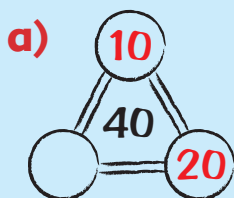
**e)**
$$\begin{array}{r} 3 \\ + \ 6 \\ \hline \end{array} \qquad \begin{array}{r} 3\ 0 \\ + \ 6\ 0 \\ \hline \end{array}$$

**f)**
$$\begin{array}{r} 6 \\ + \ 2 \\ \hline \end{array} \qquad \begin{array}{r} 6\ 0 \\ + \ 2\ 0 \\ \hline \end{array}$$

**3** Answer these.

**a)**
$$\begin{array}{r} 3\ 0 \\ + \ 2\ 0 \\ \hline \end{array}$$

**b)**
$$\begin{array}{r} 3\ 0 \\ + \ 3\ 0 \\ \hline \end{array}$$

**c)**
$$\begin{array}{r} 3\ 0 \\ + \ 5\ 0 \\ \hline \end{array}$$

**d)**
$$\begin{array}{r} 3\ 0 \\ + \ 6\ 0 \\ \hline \end{array}$$

**e)**
$$\begin{array}{r} 2\ 0 \\ + \ 4\ 0 \\ \hline \end{array}$$

**f)**
$$\begin{array}{r} 4\ 0 \\ + \ 5\ 0 \\ \hline \end{array}$$

**Try this**

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

**a)** 10, 40, 20

**b)** 20, 60, 20

**c)** 50, 30, 10

**d)** 20, 80, 30

# TU + U (no renaming)

## Example 1

12 + 5     = ☐     Break up the 12 into tens and units.

10 + 2 + 5 = ☐

10 + 7 = 17

## Example 2

```
  T U
  2 3
+   4
─────
```

**Step 1**   Add the units.      **Step 2**   Write in the tens.

```
  T U                        T U
  2 3                        2 3
+   4                      +   4
─────                      ─────
    7                        2 7
```

**1**   Complete these.

**a)** 15 + 3 = ☐

10 + 5 + 3 = ☐

**b)** 21 + 3 = ☐

20 + 1 + 3 = ☐

**c)** 34 + 5 = ☐

30 + 4 + 5 = ☐

**d)** 23 + 4 = ☐

20 + 3 + 4 = ☐

**e)** 35 + 2 = ☐

30 + 5 + 2 = ☐

**f)** 43 + 6 = ☐

40 + 3 + 6 = ☐

**2** Answer these.

a)  36 + 2 = ☐

b)  25 + 1 = ☐

c)  51 + 3 = ☐

d)  65 + 4 = ☐

e)  24 + 4 = ☐

f)  82 + 3 = ☐

g)  61 + 8 = ☐

h)  45 + 2 = ☐

**3** Complete these.

a)
```
  2 5
+   4
─────
```

b)
```
  4 4
+   2
─────
```

c)
```
  5 3
+   5
─────
```

d)
```
  3 1
+   7
─────
```

e)
```
  4 5
+   3
─────
```

f)
```
  6 2
+   5
─────
```

g)
```
  9 1
+   7
─────
```

h)
```
  8 4
+   3
─────
```

**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

$30 + 13 = \boxed{\phantom{00}}$        Break up the 13 into tens and units.

$30 + 10 + 3 = \boxed{\phantom{00}}$

$40 + 3 = 43$

## Example 2

```
  T U
  2 0
+ 3 4
─────
```

**1** Add the units.

```
  T U
  2 0
+ 3 4
─────
    4
```

**2** Add the tens.

```
  T U
  2 0
+ 3 4
─────
  5 4
```

**1** Copy and complete.

a) $20 + 15 = \boxed{\phantom{00}}$

$20 + 10 + 5 = \boxed{\phantom{00}}$

b) $40 + 11 = \boxed{\phantom{00}}$

$40 + 10 + 1 = \boxed{\phantom{00}}$

c) $30 + 18 = \boxed{\phantom{00}}$

$30 + 10 + 8 = \boxed{\phantom{00}}$

d) $40 + 23 = \boxed{\phantom{00}}$

$40 + 20 + 3 = \boxed{\phantom{00}}$

e) $20 + 35 = \boxed{\phantom{00}}$

$20 + 30 + 5 = \boxed{\phantom{00}}$

f) $30 + 46 = \boxed{\phantom{00}}$

$30 + 40 + 6 = \boxed{\phantom{00}}$

**2** Write the answers.

a)  2 0
   + 1 5
   ——

b)  3 0
   + 1 2
   ——

c)  3 0
   + 2 4
   ——

d)  2 0
   + 2 6
   ——

e)  4 0
   + 3 1
   ——

f)  5 0
   + 2 7
   ——

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

a) 40 + 31 = ☐

b) 30 + 25 = ☐

c) 50 + 11 = ☐
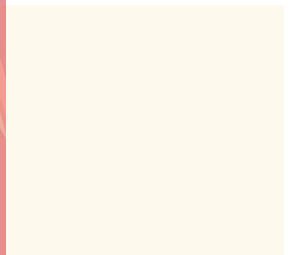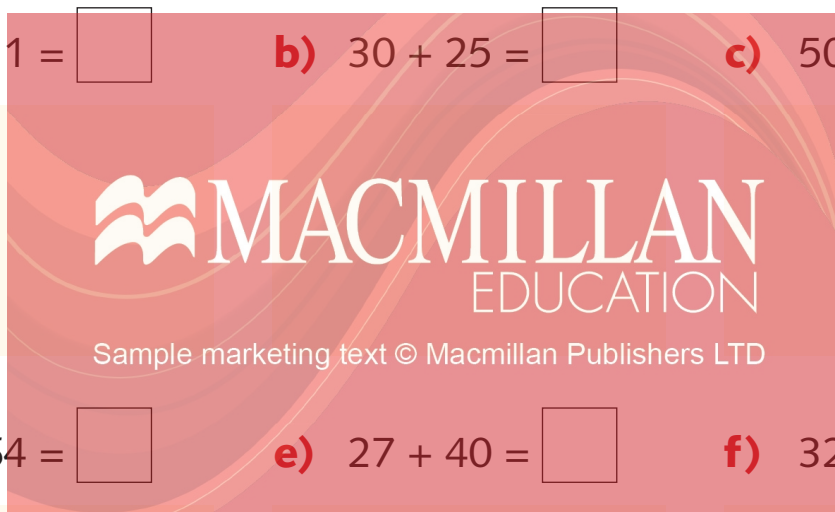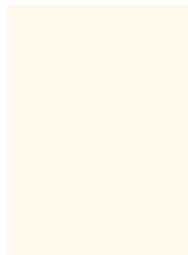
d) 20 + 64 = ☐

e) 27 + 40 = ☐

f) 32 + 30 = ☐
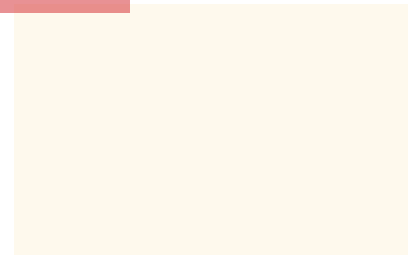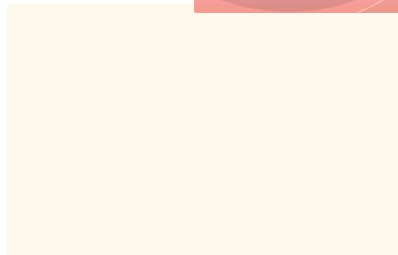
g) 61 + 20 = ☐

h) 42 + 50 = ☐

i) 53 + 30 = ☐
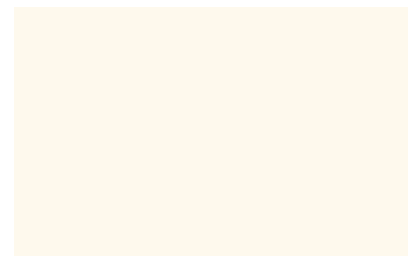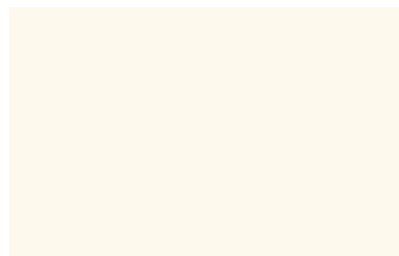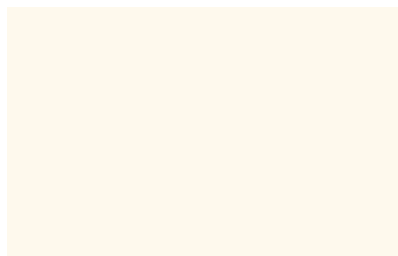
# TU + TU (no renaming)

**Example 1**

$14 + 23 = \boxed{\phantom{00}}$

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**

```
  T U
  2 5
+ 3 2
_____
```

**1** Add the units.

```
  T U
  2 5
+ 3 2
_____
    7
```

**2** Add the tens.

```
  T U
  2 5
+ 3 2
_____
  5 7
```

**1** Write the answers.

**a)**
```
  2 3
+ 1 1
_____
```

**b)**
```
  3 1
+ 1 4
_____
```

**c)**
```
  2 6
+ 2 2
_____
```

**d)**
```
  3 2
+ 1 6
_____
```

**e)**
```
  4 6
+ 3 2
_____
```

**2** Answer these.

**a)** 23 + 11 = ☐

**b)** 15 + 22 = ☐

**c)** 31 + 16 = ☐

**d)** 22 + 14 = ☐

**e)** 27 + 21 = ☐

**f)** 32 + 13 = ☐

**g)** 21 + 28 = ☐

**h)** 26 + 12 = ☐

**Assessment**

23      30      12      42      40      33      50

Use any of the numbers above to complete these.

**a)** ☐ + ☐ = 70

**b)** ☐ + ☐ = 63

**c)** ☐ + ☐ = 82

**d)** ☐ + ☐ = 65