CONTENTS Close

teger classes. Signed types enable you to work with negative integers
e a range of numbers as the unsigned types because one bit is used to
mber. Unsigned types give you a wider range of numbers, but these

for integer data. You can save memory and execution time for your
at accommodates your data. For example, you do not need a 32-bit

values you can store with each type, and the MATLAB conversion

e of Values	Conversion Function
2^7-1	`int8`
2^{15}-1	`int16`
2^{31}-1	`int32`
2^{63}-1	`int64`
^{8}-1	`uint8`
^{16}-1	`uint16`
^{32}-1	`uint32`
^{64}-1	`uint64`

on floating point (`double`) by default. To store data as an integer, you
ger type. Use one of the conversion functions shown in the table above.

eger assigned to variable `x`, type

a fractional part, MATLAB rounds to the nearest integer. If the fractional
arby integers, MATLAB chooses the one for which the absolute value is

```
 + .001;
```

```
(x)
```

```
326
```

scheme other than the default, MATLAB provides four rounding
function enables you to override the default and round *towards zero*

and floating-point always result in an integer data type. MATLAB
the default rounding algorithm. The example below yields an exact
to the next highest integer:

ıl when converting other classes, such as strings, to integers:

```
  111  114  108  100
```

the result is a value of `0` in that integer class. For example,

following types of data:

er data type. This yields a result that has the same data type as the

```
t32(75);
```

-precision floating-point numbers. This yields a result that has the same

```
49;
```

is an array of integer data type (except 64-bit integers) and the other is
on using elementwise double-precision arithmetic, and then converts
For binary operations involving a 64-bit integer array and a scalar
80-bit extended-precision arithmetic were used, to prevent loss of

lasses

d smallest number that you can represent with that type. The table
lest values for each integer data type in the "Range of Values" column.

ax and `intmin` functions:

```
n('int8')
```

```
28
```

aximum value of an integer data type to that type, MATLAB sets it to the
ber that is smaller than the minimum value of the integer data type,
ıple,

```
nt8(-300)
```

```
28
```

involving integers exceeds the maximum (or minimum) value of the
ıinimum) value:

```
nt8(-100) * 3
```

```
28
```

t commonly used with integers in MATLAB.