

Package ‘assertive’

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Type Package

Title Readable Check Functions to Ensure Code Integrity

Version 0.3-5

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Description Lots of predicates (is_* functions) to check the state of your variables, and assertions (assert_* functions) to throw errors if they aren't in the right form.

URL <https://bitbucket.org/richierocks/assertive>

BugReports <https://bitbucket.org/richierocks/assertive/issues>

Depends R (>= 3.0.0)

Imports assertive.base (>= 0.0-4), assertive.properties (>= 0.0-2),
assertive.types (>= 0.0-2), assertive.numbers,
assertive.strings, assertive.dates, assertive.files,
assertive.sets (>= 0.0-2), assertive.matrices,
assertive.models, assertive.data, assertive.data.uk,
assertive.data.us, assertive.reflection (>= 0.0-2),
assertive.code, knitr

Suggests testthat

License GPL (>= 3)

LazyLoad yes

LazyData yes

VignetteBuilder knitr

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R topics documented:

are_identical	5
are_same_length	5
are_set_equal	5
assertionError	5
assertive	6
assert_engine	6
assert_is_all_of	6
bapply	6
call_and_name	7
cause	7
changes	7
character_to_list_of_integer_vectors	8
coerce_to	8
DIM	8
dont_stop	8
false	8
get_name_in_parent	9
has_any_attributes	9
has_arg	9
has_attributes	9
has_cols	9
has_dims	10
has_duplicates	10
has_names	10
has_slot	10
has_terms	10
is2	11
is_array	11
is_atomic	11
is_batch_mode	11
is_binding_locked	11
is_cas_number	12
is_character	12
is_class	12
is_closure_function	12
is_complex	12
is_connection	13
is_credit_card_number	13
is_data.frame	13
is_data.table	13
is_date	13

is_date_string	14
is_debugged	14
is_diagonal_matrix	14
is_dir	14
is_divisible_by	14
is_email_address	15
is_empty	15
is_empty_character	15
is_empty_file	15
is_empty_model	15
is_environment	16
is_equal_to	16
is_error_free	16
is_executable_file	16
is_existing	16
is_existing_file	17
is_externalptr	17
is_factor	17
is_finite	17
is_formula	17
is_function	18
is_hex_color	18
is_honorific	18
is_identity_matrix	18
is_if_condition	18
is_inherited_from	19
is_integer	19
is_internal_function	19
is_in_past	19
is_in_range	19
is_ip_address	20
is_isbn_code	20
is_language	20
is_leaf	20
is_library	20
is_list	21
is_loaded	21
is_logical	21
is_lower_triangular_matrix	21
is_matching_fixed	21
is_monotonic_increasing	22
is_nan	22
is_null	22
is_numeric	22
is_numeric_string	22
is_on_os_path	23
is_package_current	23
is_qr	23

is_r	23
is_raster	23
is_raw	24
is_real	24
is_relistable	24
is_rstudio_current	24
is_rstudio_desktop	24
is_r_current	25
is_s3_generic	25
is_s4	25
is_single_character	25
is_square_matrix	25
is_symmetric_matrix	26
is_table	26
is_tbl	26
is_try_error	26
is_ts	26
is_uk_car_licence	27
is_uk_national_insurance_number	27
is_uk_postcode	27
is_uk_telephone_number	27
is_unsorted	27
is_us_social_security_number	28
is_us_telephone_number	28
is_us_zip_code	28
is_valid_r_code	28
is_valid_variable_name	28
is_whole_number	29
is_windows	29
is_xxx_for_decimal_point	29
is_zero_matrix	29
merge_dots_with_list	29
na	30
n_elements	30
parenthesize	30
print_and_capture	30
r_can_find_tools	30
r_has_jpeg_capability	31
safe_deparse	31
set_cause	31
strip_attributes	31
sys_get_locale	31
Truth	32
use_first	32

are_identical	<i>Are the inputs identical?</i>
---------------	----------------------------------

Description

See [are_identical](#).

are_same_length	<i>Are the inputs the same length/dimension?</i>
-----------------	--

Description

See [are_same_length](#).

are_set_equal	<i>Set comparisons</i>
---------------	------------------------

Description

See [are_set_equal](#).

assertionError	<i>Condition classes</i>
----------------	--------------------------

Description

See [assertionError](#).

assertive	<i>Readable check functions to ensure code integrity.</i>
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Description

assertive contains lots of `is_*` functions to check the state of your variables, and `assert_*` functions to throw errors if they aren't in the right form.

Details

When the package loads, it creates a global option "`assertive.severity`" that determines what happens when an `assert_*` function's input fails the condition. By default, an error is thrown but it is possible to generate warnings or messages instead (see the examples).

Author(s)

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Examples

```
is_numeric(1:10)
assert_all_are_positive(1:10)
dont_stop(assert_is_scalar(runif(10)))
```

assert_engine	<i>Throws an error if a condition isn't met</i>
---------------	---

Description

See [assert_engine](#).

assert_is_all_of	<i>Does x belong to these classes?</i>
------------------	--

Description

See [assert_is_all_of](#).

bapply	<i>Wrapper to vapply that returns booleans.</i>
--------	---

Description

See [bapply](#).

call_and_name	<i>Call a function, and give the result names.</i>
---------------	--

Description

See [call_and_name](#).

cause	<i>Get or set the "cause" attribute</i>
-------	---

Description

See [cause](#).

changes	<i>Important changes to assertive</i>
---------	---------------------------------------

Description

Changes since 0.3-0:

Virtuality

The assertive package is now a virtual package: that is, it no longer contains its own functions, but instead reexports them from lower-level packages.

For interactive use, you can carry on using assertive as before.

For programmatic use, you can have more fine-grained control over what gets loaded by using the lower-level packages.

`assertive.base` contains the core functionality. `assertive.properties` contains checks on properties of variables. `assertive.types` contains checks on types of variables. `assertive.numbers` contains checks for numbers. `assertive.strings` contains checks for strings. `assertive.dates` contains checks for dates and times. `assertive.files` contains checks for files and connections. `assertive.sets` contains checks for sets. `assertive.matrices` contains checks for matrices. `assertive.models` contains checks for models. `assertive.data` contains checks for complex data types. `assertive.data.uk` contains checks for UK-specific complex data types. `assertive.data.us` contains checks for US-specific complex data types. `assertive.reflection` contains checks on the state of R. `assertive.code` contains checks for code.

Translations

The infrastructure for errors and warnings in multiple languages is in place, and translations are planned for future versions. If you want to be a translator, email me at [<richierocks@gmail.com>](mailto:richierocks@gmail.com).

`character_to_list_of_integer_vectors`

Convert a character vector to a list of integer vectors See [character_to_list_of_integer_vectors](#).

Description

Convert a character vector to a list of integer vectors

See [character_to_list_of_integer_vectors](#).

`coerce_to`

Coerce variable to a different class

Description

See [coerce_to](#).

`DIM`

Get the dimensions of an object

Description

See [DIM](#).

See [DIM](#).

`dont_stop`

Run code without stopping

Description

See [dont_stop](#).

`false`

FALSE, with a cause of failure

Description

See [false](#).

`get_name_in_parent` *Get the name of a variable in the parent frame*

Description

See [get_name_in_parent](#).

`has_any_attributes` *Does the input have any attributes?*

Description

See [has_any_attributes](#).

`has_arg` *Does the current call have an argument? See [has_arg](#).*

Description

Does the current call have an argument?

See [has_arg](#).

`has_attributes` *Does the input have the specified attributes?*

Description

See [has_attributes](#).

`has_cols` *Does the input have rows/columns?*

Description

See [has_cols](#).

has_dims	<i>Does the input have dimensions?</i>
----------	--

Description

See [has_dims](#).

has_duplicates	<i>Does the input have duplicates?</i>
----------------	--

Description

See [has_duplicates](#).

has_names	<i>Does the input have names?</i>
-----------	-----------------------------------

Description

See [has_names](#).

has_slot	<i>Does the S4 input have a slot?</i>
----------	---------------------------------------

Description

See [has_slot](#).

has_terms	<i>Does the input have terms?</i>
-----------	-----------------------------------

Description

See [has_terms](#).

is2	<i>Alternative version of is</i>
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Description

See [is2](#).

is_array	<i>Is the input an array or matrix?</i>
----------	---

Description

See [is_array](#).

is_atomic	<i>Is the input atomic/recursive/vector?</i>
-----------	--

Description

See [is_atomic](#).

is_batch_mode	<i>How is R running?</i>
---------------	--------------------------

Description

See [is_batch_mode](#).

is_binding_locked	<i>Is the binding of a variable locked? See is_binding_locked.</i>
-------------------	--

Description

Is the binding of a variable locked?

See [is_binding_locked](#).

is_cas_number	<i>Does the character vector contain CAS registry numbers?</i>
---------------	--

Description

See [is_cas_number](#).

is_character	<i>Is the input of type character?</i>
--------------	--

Description

See [is_character](#).

is_class	<i>Is the input the name of a (formally defined) class?</i>
----------	---

Description

See [is_class](#).

is_closure_function	<i>Is the input a closure, builtin or special function?</i>
---------------------	---

Description

See [is_closure_function](#).

is_complex	<i>Is the input complex?</i>
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Description

See [is_complex](#).

is_connection	<i>Is the input a connection?</i>
---------------	-----------------------------------

Description

See [is_connection](#).

is_credit_card_number	<i>Does the character vector contain credit card numbers?</i>
-----------------------	---

Description

See [is_credit_card_number](#).

is_data.frame	<i>Is the input is a data.frame?</i>
---------------	--------------------------------------

Description

See [is_data.frame](#).

is_data.table	<i>Is the input a data.table?</i>
---------------	-----------------------------------

Description

See [is_data.table](#).

is_date	<i>Is the input a date?</i>
---------	-----------------------------

Description

See [is_date](#).

is_date_string	<i>Does the character vector contain dates?</i>
----------------	---

Description

See [is_date_string](#).

is_debugged	<i>Is the input function being debugged? See is_debugged.</i>
-------------	---

Description

Is the input function being debugged?

See [is_debugged](#).

is_diagonal_matrix	<i>Is the input a diagonal matrix?</i>
--------------------	--

Description

See [is_diagonal_matrix](#).

is_dir	<i>Is the path a directory?</i>
--------	---------------------------------

Description

See [is_dir](#).

is_divisible_by	<i>Is the input divisible by a number?</i>
-----------------	--

Description

See [is_divisible_by](#).

is_email_address	<i>Does the character vector contain email addresses?</i>
------------------	---

Description

See [is_email_address](#).

is_empty	<i>Is the input empty/scalar?</i>
----------	-----------------------------------

Description

See [is_empty](#).

is_empty_character	<i>Does the input contain empty or missing strings?</i>
--------------------	---

Description

See [is_empty_character](#).

is_empty_file	<i>Is a file too big or small?</i>
---------------	------------------------------------

Description

See [is_empty_file](#).

is_empty_model	<i>Is the input the empty model?</i>
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Description

See [is_empty_model](#).

is_environment	<i>Is the input an environment?</i>
----------------	-------------------------------------

Description

See [is_environment](#).

is_equal_to	<i>How does the input relate to a value?</i>
-------------	--

Description

See [is_equal_to](#).

is_error_free	<i>Does the code run without throwing an error? See is_error_free.</i>
---------------	--

Description

Does the code run without throwing an error?

See [is_error_free](#).

is_executable_file	<i>Is the file accessible?</i>
--------------------	--------------------------------

Description

See [is_executable_file](#).

is_existing	<i>Does the variable exist? See is_existing.</i>
-------------	--

Description

Does the variable exist?

See [is_existing](#).

is_existing_file *Does the file exist?*

Description

See [is_existing_file](#).

is_externalptr *Is the input an external pointer?*

Description

See [is_externalptr](#).

is_factor *Is the input a factor?*

Description

See [is_factor](#).

is_finite *Are the inputs (in)finite?*

Description

See [is_finite](#).

is_formula *Is the input a formula?*

Description

See [is_formula](#).

is_function	<i>Is the input a function?</i>
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Description

See [is_function](#).

is_hex_color	<i>Does the character vector contain hex colors?</i>
--------------	--

Description

See [is_hex_color](#).

is_honorific	<i>Is the string an honorific?</i>
--------------	------------------------------------

Description

See [is_honorific](#).

is_identity_matrix	<i>Is the input an identity matrix?</i>
--------------------	---

Description

See [is_identity_matrix](#).

is_if_condition	<i>Is suitable to be used as an if condition See is_if_condition.</i>
-----------------	---

Description

Is suitable to be used as an if condition

See [is_if_condition](#).

is_inherited_from *Does the object inherit from some class?*

Description

See [is_inherited_from](#).

is_integer *Is the input an integer?*

Description

See [is_integer](#).

is_internal_function *Is the input an internal function?*

Description

See [is_closure_function](#).

is_in_past *Is the input in the past/future?*

Description

See [is_in_past](#).

is_in_range *Is the input in range?*

Description

See [is_in_range](#).

is_ip_address	<i>Does the character vector contain IP addresses?</i>
---------------	--

Description

See [is_ip_address](#).

is_isbn_code	<i>Does the character vector contain ISBN book codes?</i>
--------------	---

Description

See [is_isbn_code](#).

is_language	<i>Is the input a language object?</i>
-------------	--

Description

See [is_language](#).

is_leaf	<i>Is the input a (dendrogram) leaf?</i>
---------	--

Description

See [is_leaf](#).

is_library	<i>Is the directory a known R library?</i>
------------	--

Description

See [is_library](#).

is_list	<i>Is the input a list?</i>
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Description

See [is_list](#).

is_loaded	<i>Is the input DLL loaded? See is_loaded.</i>
-----------	--

Description

Is the input DLL loaded?

See [is_loaded](#).

is_logical	<i>Is the input logical?</i>
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Description

See [is_logical](#).

is_lower_triangular_matrix	<i>Is the matrix upper/lower triangular?</i>
----------------------------	--

Description

See [is_lower_triangular_matrix](#).

is_matching_fixed	<i>Does the string match a pattern? See is_matching_fixed.</i>
-------------------	--

Description

Does the string match a pattern?

See [is_matching_fixed](#).

is_monotonic_increasing

Is the vector monotonically increasing or decreasing?

Description

See [is_monotonic_increasing](#).

is_nan

Is the input (not) NaN?

Description

See [is_nan](#).

is_null

Checks to see if the input is (not) null.

Description

See [is_null](#).

is_numeric

Is the input numeric?

Description

See [is_numeric](#).

is_numeric_string

Does the string contain a number? See [is_numeric_string](#).

Description

Does the string contain a number?

See [is_numeric_string](#).

is_on_os_path	<i>Is the path on the OS path?</i>
---------------	------------------------------------

Description

See [is_on_os_path](#).

is_package_current	<i>Is the installed version of a package current?</i>
--------------------	---

Description

See [is_package_current](#).

is_qr	<i>Is the input a QR decomposition of a matrix?</i>
-------	---

Description

See [is_qr](#).

is_r	<i>Are you running R?</i>
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Description

See [is_r](#).

is_raster	<i>Is the input a raster?</i>
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Description

See [is_raster](#).

is_raw	<i>Is the input raw?</i>
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Description

See [is_raw](#).

is_real	<i>Is the input real/imaginary?</i>
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Description

See [is_real](#).

is_relistable	<i>Is the input relistable?</i>
---------------	---------------------------------

Description

See [is_relistable](#).

is_rstudio_current	<i>Is RStudio the current version?</i>
--------------------	--

Description

See [is_rstudio_current](#).

is_rstudio_desktop	<i>Is RStudio running in desktop or server mode?</i>
--------------------	--

Description

See [is_rstudio_desktop](#).

is_r_current	<i>Is this version of R up to date?</i>
--------------	---

Description

See [is_r_current](#).

is_s3_generic	<i>Is the input an S3 generic or method?</i>
---------------	--

Description

See [is_s3_generic](#).

is_s4	<i>Is the input an S4 object?</i>
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Description

See [is_s4](#).

is_single_character	<i>Is the input a single character? See is_single_character.</i>
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Description

Is the input a single character?

See [is_single_character](#).

is_square_matrix	<i>Is the input a square matrix?</i>
------------------	--------------------------------------

Description

See [is_square_matrix](#).

is_symmetric_matrix	<i>Is the input a symmetric matrix?</i>
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Description

See [is_symmetric_matrix](#).

is_table	<i>Is the input a table?</i>
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Description

See [is_table](#).

is_tbl	<i>Is the input a tbl?</i>
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Description

See [is_tbl](#).

is_try_error	<i>Is the input a condition?</i>
--------------	----------------------------------

Description

See [is_try_error](#).

is_ts	<i>Is the input a time series?</i>
-------	------------------------------------

Description

See [is_ts](#).

is_uk_car_licence *Is the string a valid UK car licence plate number?*

Description

See [is_uk_car_licence](#).

is_uk_national_insurance_number
Is the string a valid UK national insurance number?

Description

See [is_uk_national_insurance_number](#).

is_uk_postcode *Is the string a valid UK postcode?*

Description

See [is_uk_postcode](#).

is_uk_telephone_number
Is the string a valid UK telephone number?

Description

See [is_uk_telephone_number](#).

is_unsorted *Is the input unsorted?*

Description

See [is_unsorted](#).

is_us_social_security_number
Is the string a valid US SSN?

Description

See [is_us_social_security_number](#).

is_us_telephone_number
Is the string a valid US telephone number?

Description

See [is_us_telephone_number](#).

is_us_zip_code
Is the string a valid US zip code?

Description

See [is_us_zip_code](#).

is_valid_r_code
Is the input valid R code? See [is_valid_r_code](#).

Description

Is the input valid R code?

See [is_valid_r_code](#).

is_valid_variable_name
Is the string a valid variable name? See [is_valid_variable_name](#).

Description

Is the string a valid variable name?

See [is_valid_variable_name](#).

is_whole_number	<i>Is the input a whole number?</i>
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Description

See [is_whole_number](#).

is_windows	<i>What OS is running?</i>
------------	----------------------------

Description

See [is_windows](#).

is_xxx_for_decimal_point	<i>What does the current locale specify for the decimal point?</i>
--------------------------	--

Description

See [is_xxx_for_decimal_point](#).

is_zero_matrix	<i>Is the input a zero matrix?</i>
----------------	------------------------------------

Description

See [is_zero_matrix](#).

merge_dots_with_list	<i>Merge ellipsis args with a list.</i>
----------------------	---

Description

See [merge_dots_with_list](#).

na	<i>NA, with a cause of failure</i>
----	------------------------------------

Description

See [na](#).

n_elements	<i>Get the number of elements</i>
------------	-----------------------------------

Description

See [n_elements](#).

parenthesize	<i>Wrap a string in brackets</i>
--------------	----------------------------------

Description

See [parenthesize](#).

print_and_capture	<i>Print a variable and capture the output</i>
-------------------	--

Description

See [print_and_capture](#).

r_can_find_tools	<i>Can R find tools?</i>
------------------	--------------------------

Description

See [r_can_find_tools](#).

r_has_jpeg_capability *Does R have a capability?*

Description

See [r_has_jpeg_capability](#).

safe_deparse *Safe version of deparse*

Description

See [safe_deparse](#).

set_cause *Set a cause and return the input*

Description

See [set_cause](#).

strip_attributes *Strip all attributes from a variable*

Description

See [strip_attributes](#).

sys_get_locale *Get or set the system locale*

Description

See [sys_get_locale](#).

Truth	<i>Is the input TRUE/FALSE/NA?</i>
-------	------------------------------------

Description

See [Truth](#).

use_first	<i>Only use the first element of a vector</i>
-----------	---

Description

See [use_first](#).

Index

are_disjoint_sets (are_set_equal), 5
are_identical, 5, 5
are_identical_legacy (are_identical), 5
are_intersecting_sets (are_set_equal), 5
are_same_length, 5, 5
are_same_length_legacy
 (are_same_length), 5
are_set_equal, 5, 5
assert_all_are_after (is_in_past), 19
assert_all_are_before (is_in_past), 19
assert_all_are_cas_numbers
 (is_cas_number), 12
assert_all_are_classes (is_class), 12
assert_all_are_credit_card_numbers
 (is_credit_card_number), 13
assert_all_are_current_packages
 (is_package_current), 23
assert_all_are_date_strings
 (is_date_string), 14
assert_all_are_dirs (is_dir), 14
assert_all_are_divisible_by
 (is_divisible_by), 14
assert_all_are_email_addresses
 (is_email_address), 15
assert_all_are_empty_character
 (is_empty_character), 15
assert_all_are_empty_files
 (is_empty_file), 15
assert_all_are_equal_to (is_equal_to),
 16
assert_all_are_even (is_divisible_by),
 14
assert_all_are_ex_files
 (is_executable_file), 16
assert_all_are_executable_files
 (is_executable_file), 16
assert_all_are_existing (is_existing),
 16
assert_all_are_existing_files
 (is_existing_file), 17
assert_all_are_false (Truth), 32
assert_all_are_finite (is_finite), 17
assert_all_are_greater_than
 (is_equal_to), 16
assert_all_are_greater_than_or_equal_to
 (is_equal_to), 16
assert_all_are_hex_colors
 (is_hex_color), 18
assert_all_are_hex_colours
 (is_hex_color), 18
assert_all_are_honorifics
 (is_honorific), 18
assert_all_are_identical_legacy
 (are_identical), 5
assert_all_are_imaginary (is_real), 24
assert_all_are_in_closed_range
 (is_in_range), 19
assert_all_are_in_future (is_in_past),
 19
assert_all_are_in_left_open_range
 (is_in_range), 19
assert_all_are_in_open_range
 (is_in_range), 19
assert_all_are_in_past (is_in_past), 19
assert_all_are_in_range (is_in_range),
 19
assert_all_are_in_right_open_range
 (is_in_range), 19
assert_all_are_infinite (is_finite), 17
assert_all_are_ip_addresses
 (is_ip_address), 20
assert_all_are_isbn_codes
 (is_isbn_code), 20
assert_all_are_less_than (is_equal_to),
 16
assert_all_are_less_than_or_equal_to
 (is_equal_to), 16
assert_all_are_libraries (is_library),

- 20
- assert_all_are_logical_strings
(is_numeric_string), 22
- assert_all_are_matching_fixed
(is_matching_fixed), 21
- assert_all_are_matching_regex
(is_matching_fixed), 21
- assert_all_are_missing_or_empty_character
(is_empty_character), 15
- assert_all_are_na (Truth), 32
- assert_all_are_nan (is_nan), 22
- assert_all_are_negative (is_in_range),
19
- assert_all_are_negative_infinity
(is_finite), 17
- assert_all_are_non_empty_character
(is_empty_character), 15
- assert_all_are_non_empty_files
(is_empty_file), 15
- assert_all_are_non_missing_nor_empty_characters
(is_empty_character), 15
- assert_all_are_non_negative
(is_in_range), 19
- assert_all_are_non_positive
(is_in_range), 19
- assert_all_are_not_equal_to
(is_equal_to), 16
- assert_all_are_not_false (Truth), 32
- assert_all_are_not_matching_fixed
(is_matching_fixed), 21
- assert_all_are_not_matching_regex
(is_matching_fixed), 21
- assert_all_are_not_na (Truth), 32
- assert_all_are_not_nan (is_nan), 22
- assert_all_are_not_true (Truth), 32
- assert_all_are_numeric_strings
(is_numeric_string), 22
- assert_all_are_odd (is_divisible_by), 14
- assert_all_are_on_os_path
(is_on_os_path), 23
- assert_all_are_percentages
(is_in_range), 19
- assert_all_are_positive (is_in_range),
19
- assert_all_are_positive_infinity
(is_finite), 17
- assert_all_are_proportions
(is_in_range), 19
- assert_all_are_readable_files
(is_executable_file), 16
- assert_all_are_real (is_real), 24
- assert_all_are_same_length
(are_same_length), 5
- assert_all_are_same_length_legacy
(are_same_length), 5
- assert_all_are_single_characters
(is_single_character), 25
- assert_all_are_true (Truth), 32
- assert_all_are_uk_car_licences
(is_uk_car_licence), 27
- assert_all_are_uk_car_licenses
(is_uk_car_licence), 27
- assert_all_are_uk_national_insurance_numbers
(is_uk_national_insurance_number),
27
- assert_all_are_uk_postcodes
(is_uk_postcode), 27
- assert_all_are_uk_telephone_numbers
(is_uk_telephone_number), 27
- assert_all_are_us_social_security_numbers
(is_us_social_security_number),
28
- assert_all_are_us_telephone_numbers
(is_us_telephone_number), 28
- assert_all_are_us_zip_codes
(is_us_zip_code), 28
- assert_all_are_valid_variable_names
(is_valid_variable_name), 28
- assert_all_are_whole_numbers
(is_whole_number), 29
- assert_all_are_writable_files
(is_executable_file), 16
- assert_all_file_sizes_are_in_range
(is_empty_file), 15
- assert_all_numbers_are_whole_numbers
(is_whole_number), 29
- assert_all_strings_are_not_missing_nor_empty
(is_empty_character), 15
- assert_any_are_after (is_in_past), 19
- assert_any_are_before (is_in_past), 19
- assert_any_are_cas_numbers
(is_cas_number), 12
- assert_any_are_classes (is_class), 12
- assert_any_are_credit_card_numbers
(is_credit_card_number), 13
- assert_any_are_current_packages

- `(is_package_current)`, 23
- `assert_any_are_date_strings`
 - `(is_date_string)`, 14
- `assert_any_are_dirs` `(is_dir)`, 14
- `assert_any_are_divisible_by`
 - `(is_divisible_by)`, 14
- `assert_any_are_email_addresses`
 - `(is_email_address)`, 15
- `assert_any_are_empty_character`
 - `(is_empty_character)`, 15
- `assert_any_are_empty_files`
 - `(is_empty_file)`, 15
- `assert_any_are_equal_to` `(is_equal_to)`, 16
- `assert_any_are_even` `(is_divisible_by)`, 14
- `assert_any_are_ex_files`
 - `(is_executable_file)`, 16
- `assert_any_are_executable_files`
 - `(is_executable_file)`, 16
- `assert_any_are_existing` `(is_existing)`, 16
- `assert_any_are_existing_files`
 - `(is_existing_file)`, 17
- `assert_any_are_false` `(Truth)`, 32
- `assert_any_are_finite` `(is_finite)`, 17
- `assert_any_are_greater_than`
 - `(is_equal_to)`, 16
- `assert_any_are_greater_than_or_equal_to`
 - `(is_equal_to)`, 16
- `assert_any_are_hex_colors`
 - `(is_hex_color)`, 18
- `assert_any_are_hex_colours`
 - `(is_hex_color)`, 18
- `assert_any_are_honorifics`
 - `(is_honorific)`, 18
- `assert_any_are_identical_legacy`
 - `(are_identical)`, 5
- `assert_any_are_imaginary` `(is_real)`, 24
- `assert_any_are_in_closed_range`
 - `(is_in_range)`, 19
- `assert_any_are_in_future` `(is_in_past)`, 19
- `assert_any_are_in_left_open_range`
 - `(is_in_range)`, 19
- `assert_any_are_in_open_range`
 - `(is_in_range)`, 19
- `assert_any_are_in_past` `(is_in_past)`, 19
- `assert_any_are_in_range` `(is_in_range)`, 19
- `assert_any_are_in_right_open_range`
 - `(is_in_range)`, 19
- `assert_any_are_infinite` `(is_finite)`, 17
- `assert_any_are_ip_addresses`
 - `(is_ip_address)`, 20
- `assert_any_are_isbn_codes`
 - `(is_isbn_code)`, 20
- `assert_any_are_less_than` `(is_equal_to)`, 16
- `assert_any_are_less_than_or_equal_to`
 - `(is_equal_to)`, 16
- `assert_any_are_libraries` `(is_library)`, 20
- `assert_any_are_logical_strings`
 - `(is_numeric_string)`, 22
- `assert_any_are_matching_fixed`
 - `(is_matching_fixed)`, 21
- `assert_any_are_matching_regex`
 - `(is_matching_fixed)`, 21
- `assert_any_are_missing_or_empty_character`
 - `(is_empty_character)`, 15
- `assert_any_are_na` `(Truth)`, 32
- `assert_any_are_nan` `(is_nan)`, 22
- `assert_any_are_negative` `(is_in_range)`, 19
- `assert_any_are_negative_infinity`
 - `(is_finite)`, 17
- `assert_any_are_non_empty_character`
 - `(is_empty_character)`, 15
- `assert_any_are_non_empty_files`
 - `(is_empty_file)`, 15
- `assert_any_are_non_missing_nor_empty_character`
 - `(is_empty_character)`, 15
- `assert_any_are_non_negative`
 - `(is_in_range)`, 19
- `assert_any_are_non_positive`
 - `(is_in_range)`, 19
- `assert_any_are_not_equal_to`
 - `(is_equal_to)`, 16
- `assert_any_are_not_false` `(Truth)`, 32
- `assert_any_are_not_matching_fixed`
 - `(is_matching_fixed)`, 21
- `assert_any_are_not_matching_regex`
 - `(is_matching_fixed)`, 21
- `assert_any_are_not_na` `(Truth)`, 32
- `assert_any_are_not_nan` `(is_nan)`, 22

- assert_any_are_not_true (Truth), 32
- assert_any_are_numeric_strings
 - (is_numeric_string), 22
- assert_any_are_odd (is_divisible_by), 14
- assert_any_are_on_os_path
 - (is_on_os_path), 23
- assert_any_are_percentages
 - (is_in_range), 19
- assert_any_are_positive (is_in_range), 19
- assert_any_are_positive_infinity
 - (is_finite), 17
- assert_any_are_proportions
 - (is_in_range), 19
- assert_any_are_readable_files
 - (is_executable_file), 16
- assert_any_are_real (is_real), 24
- assert_any_are_same_length
 - (are_same_length), 5
- assert_any_are_same_length_legacy
 - (are_same_length), 5
- assert_any_are_single_characters
 - (is_single_character), 25
- assert_any_are_true (Truth), 32
- assert_any_are_uk_car_licences
 - (is_uk_car_licence), 27
- assert_any_are_uk_car_licenses
 - (is_uk_car_licence), 27
- assert_any_are_uk_national_insurance_numbers
 - (is_uk_national_insurance_number), 27
- assert_any_are_uk_postcodes
 - (is_uk_postcode), 27
- assert_any_are_uk_telephone_numbers
 - (is_uk_telephone_number), 27
- assert_any_are_us_social_security_numbers
 - (is_us_social_security_number), 28
- assert_any_are_us_telephone_numbers
 - (is_us_telephone_number), 28
- assert_any_are_us_zip_codes
 - (is_us_zip_code), 28
- assert_any_are_valid_variable_names
 - (is_valid_variable_name), 28
- assert_any_are_whole_numbers
 - (is_whole_number), 29
- assert_any_are_writable_files
 - (is_executable_file), 16
- assert_any_file_sizes_are_in_range
 - (is_empty_file), 15
- assert_any_numbers_are_whole_numbers
 - (is_whole_number), 29
- assert_any_strings_are_not_missing_nor_empty
 - (is_empty_character), 15
- assert_are_disjoint_sets
 - (are_set_equal), 5
- assert_are_identical (are_identical), 5
- assert_are_intersecting_sets
 - (are_set_equal), 5
- assert_are_same_length
 - (are_same_length), 5
- assert_are_set_equal (are_set_equal), 5
- assert_engine, 6, 6
- assert_has_all_attributes
 - (has_attributes), 9
- assert_has_any_attributes
 - (has_attributes), 9
- assert_has_arg (has_arg), 9
- assert_has_colnames (has_names), 10
- assert_has_cols (has_cols), 9
- assert_has_dimnames (has_names), 10
- assert_has_dims (has_dims), 10
- assert_has_duplicates (has_duplicates), 10
- assert_has_elements (is_empty), 15
- assert_has_names (has_names), 10
- assert_has_no_duplicates
 - (has_duplicates), 10
- assert_has_rownames (has_names), 10
- assert_has_rows (has_cols), 9
- assert_has_slot (has_slot), 10
- assert_has_terms (has_terms), 10
- assert_have_same_dims
 - (are_same_length), 5
- assert_is_32_bit (is_windows), 29
- assert_is_32_bit_os (is_windows), 29
- assert_is_64_bit (is_windows), 29
- assert_is_64_bit_os (is_windows), 29
- assert_is_a_bool (is_logical), 21
- assert_is_a_complex (is_complex), 12
- assert_is_a_double (is_numeric), 22
- assert_is_a_missing_or_empty_string
 - (is_empty_character), 15
- assert_is_a_non_empty_string
 - (is_empty_character), 15
- assert_is_a_non_missing_nor_empty_string

- (is_empty_character), 15
- assert_is_a_number (is_numeric), 22
- assert_is_a_raw (is_raw), 24
- assert_is_a_string (is_character), 12
- assert_is_all_of, 6, 6
- assert_is_an_empty_string
 - (is_empty_character), 15
- assert_is_an_integer (is_integer), 19
- assert_is_any_of (assert_is_all_of), 6
- assert_is_architect (is_r), 23
- assert_is_array (is_array), 11
- assert_is_atomic (is_atomic), 11
- assert_is_batch_mode (is_batch_mode), 11
- assert_is_binding_locked
 - (is_binding_locked), 11
- assert_is_bsd (is_windows), 29
- assert_is_builtin_function
 - (is_closure_function), 12
- assert_is_bzfile_connection
 - (is_connection), 13
- assert_is_call (is_language), 20
- assert_is_character (is_character), 12
- assert_is_closure_function
 - (is_closure_function), 12
- assert_is_comma_for_decimal_point
 - (is_xxx_for_decimal_point), 29
- assert_is_complex (is_complex), 12
- assert_is_condition (is_try_error), 26
- assert_is_connection (is_connection), 13
- assert_is_current_r (is_r_current), 25
- assert_is_data.frame (is_data.frame), 13
- assert_is_data.table (is_data.table), 13
- assert_is_date (is_date), 13
- assert_is_debugged (is_debugged), 14
- assert_is_diagonal_matrix
 - (is_diagonal_matrix), 14
- assert_is_double (is_numeric), 22
- assert_is_emacs (is_r), 23
- assert_is_empty (is_empty), 15
- assert_is_empty_model (is_empty_model), 15
- assert_is_environment (is_environment), 16
- assert_is_error (is_try_error), 26
- assert_is_expression (is_language), 20
- assert_is_externalptr (is_externalptr), 17
- assert_is_factor (is_factor), 17
- assert_is_fifo_connection
 - (is_connection), 13
- assert_is_file_connection
 - (is_connection), 13
- assert_is_formula (is_formula), 17
- assert_is_function (is_function), 18
- assert_is_gzfile_connection
 - (is_connection), 13
- assert_is_identical_to_false (Truth), 32
- assert_is_identical_to_na (Truth), 32
- assert_is_identical_to_true (Truth), 32
- assert_is_identity_matrix
 - (is_identity_matrix), 18
- assert_is_if_condition
 - (is_if_condition), 18
- assert_is_incomplete_connection
 - (is_connection), 13
- assert_is_inherited_from
 - (is_inherited_from), 19
- assert_is_integer (is_integer), 19
- assert_is_interactive (is_batch_mode), 11
- assert_is_internal_function
 - (is_internal_function), 19
- assert_is_language (is_language), 20
- assert_is_leaf (is_leaf), 20
- assert_is_linux (is_windows), 29
- assert_is_list (is_list), 21
- assert_is_loaded (is_loaded), 21
- assert_is_logical (is_logical), 21
- assert_is_lower_triangular_matrix
 - (is_lower_triangular_matrix), 21
- assert_is_mac (is_windows), 29
- assert_is_macos_sierra (is_windows), 29
- assert_is_matrix (is_array), 11
- assert_is_message (is_try_error), 26
- assert_is_monotonic_decreasing
 - (is_monotonic_increasing), 22
- assert_is_monotonic_increasing
 - (is_monotonic_increasing), 22
- assert_is_mts (is_ts), 26
- assert_is_name (is_language), 20
- assert_is_nested (is_atomic), 11
- assert_is_non_empty (is_empty), 15
- assert_is_non_empty_model
 - (is_empty_model), 15
- assert_is_non_nested (is_atomic), 11

- assert_is_non_scalar (is_empty), 15
- assert_is_not_null (is_null), 22
- assert_is_null (is_null), 22
- assert_is_numeric (is_numeric), 22
- assert_is_of_dimension (is_empty), 15
- assert_is_of_length (is_empty), 15
- assert_is_one_sided_formula
(is_formula), 17
- assert_is_open_connection
(is_connection), 13
- assert_is_ordered (is_factor), 17
- assert_is_osx (is_windows), 29
- assert_is_osx_cheetah (is_windows), 29
- assert_is_osx_el_capitan (is_windows),
29
- assert_is_osx_jaguar (is_windows), 29
- assert_is_osx_leopard (is_windows), 29
- assert_is_osx_lion (is_windows), 29
- assert_is_osx_mavericks (is_windows), 29
- assert_is_osx_mountain_lion
(is_windows), 29
- assert_is_osx_panther (is_windows), 29
- assert_is_osx_puma (is_windows), 29
- assert_is_osx_snow_leopard
(is_windows), 29
- assert_is_osx_tiger (is_windows), 29
- assert_is_osx_yosemite (is_windows), 29
- assert_is_package_current
(is_package_current), 23
- assert_is_pairlist (is_list), 21
- assert_is_period_for_decimal_point
(is_xxx_for_decimal_point), 29
- assert_is_pipe_connection
(is_connection), 13
- assert_is_posixct (is_date), 13
- assert_is_posixlt (is_date), 13
- assert_is_primitive (is_function), 18
- assert_is_qr (is_qr), 23
- assert_is_r (is_r), 23
- assert_is_r_alpha (is_r), 23
- assert_is_r_beta (is_r), 23
- assert_is_r_current (is_r_current), 25
- assert_is_r_devel (is_r), 23
- assert_is_r_patched (is_r), 23
- assert_is_r_release (is_r), 23
- assert_is_r_release_candidate (is_r), 23
- assert_is_r_revised (is_r), 23
- assert_is_r_slave (is_batch_mode), 11
- assert_is_r_stable (is_r), 23
- assert_is_raster (is_raster), 23
- assert_is_raw (is_raw), 24
- assert_is_readable_connection
(is_connection), 13
- assert_is_recursive (is_atomic), 11
- assert_is_ref_class_generator (is_s4),
25
- assert_is_ref_class_object (is_s4), 25
- assert_is_relistable (is_relistable), 24
- assert_is_revo_r (is_r), 23
- assert_is_rstudio (is_r), 23
- assert_is_rstudio_current
(is_rstudio_current), 24
- assert_is_rstudio_desktop
(is_rstudio_desktop), 24
- assert_is_rstudio_server
(is_rstudio_desktop), 24
- assert_is_s3_generic (is_s3_generic), 25
- assert_is_s3_group_generic
(is_s3_generic), 25
- assert_is_s3_internal_generic
(is_s3_generic), 25
- assert_is_s3_method (is_s3_generic), 25
- assert_is_s3_primitive_generic
(is_s3_generic), 25
- assert_is_S4 (is_s4), 25
- assert_is_s4 (is_s4), 25
- assert_is_s4_group_generic
(is_s3_generic), 25
- assert_is_scalar (is_empty), 15
- assert_is_set_equal (are_set_equal), 5
- assert_is_simple_error (is_try_error),
26
- assert_is_simple_message
(is_try_error), 26
- assert_is_simple_warning
(is_try_error), 26
- assert_is_slave_r (is_batch_mode), 11
- assert_is_socket_connection
(is_connection), 13
- assert_is_solaris (is_windows), 29
- assert_is_special_function
(is_closure_function), 12
- assert_is_square_matrix
(is_square_matrix), 25
- assert_is_stderr (is_connection), 13
- assert_is_stdin (is_connection), 13

- assert_is_stdout (is_connection), 13
- assert_is_stepfun (is_function), 18
- assert_is_subset (are_set_equal), 5
- assert_is_superset (are_set_equal), 5
- assert_is_symbol (is_language), 20
- assert_is_symmetric_matrix
 (is_symmetric_matrix), 26
- assert_is_table (is_table), 26
- assert_is_tbl (is_tbl), 26
- assert_is_tbl_cube (is_tbl), 26
- assert_is_tbl_df (is_tbl), 26
- assert_is_tbl_dt (is_tbl), 26
- assert_is_terminal_connection
 (is_connection), 13
- assert_is_text_connection
 (is_connection), 13
- assert_is_try_error (is_try_error), 26
- assert_is_ts (is_ts), 26
- assert_is_tskernel (is_ts), 26
- assert_is_two_sided_formula
 (is_formula), 17
- assert_is_unix (is_windows), 29
- assert_is_unsorted (is_unsorted), 27
- assert_is_unz_connection
 (is_connection), 13
- assert_is_upper_triangular_matrix
 (is_lower_triangular_matrix),
 21
- assert_is_url_connection
 (is_connection), 13
- assert_is_valid_r_code
 (is_valid_r_code), 28
- assert_is_vector (is_atomic), 11
- assert_is_visual_studio (is_r), 23
- assert_is_warning (is_try_error), 26
- assert_is_windows (is_windows), 29
- assert_is_windows_10 (is_windows), 29
- assert_is_windows_7 (is_windows), 29
- assert_is_windows_8 (is_windows), 29
- assert_is_windows_server_2008
 (is_windows), 29
- assert_is_windows_server_2008_r2
 (is_windows), 29
- assert_is_windows_server_2012
 (is_windows), 29
- assert_is_windows_server_2012_r2
 (is_windows), 29
- assert_is_windows_vista (is_windows), 29
- assert_is_writable_connection
 (is_connection), 13
- assert_is_xzfile_connection
 (is_connection), 13
- assert_is_zero_matrix (is_zero_matrix),
 29
- assert_r_can_build_translations
 (r_can_find_tools), 30
- assert_r_can_compile_code
 (r_can_find_tools), 30
- assert_r_can_find_java
 (r_can_find_tools), 30
- assert_r_can_find_tools
 (r_can_find_tools), 30
- assert_r_has_aqua_capability
 (r_has_jpeg_capability), 31
- assert_r_has_cairo_capability
 (r_has_jpeg_capability), 31
- assert_r_has_cledit_capability
 (r_has_jpeg_capability), 31
- assert_r_has_fifo_capability
 (r_has_jpeg_capability), 31
- assert_r_has_http_ftp_capability
 (r_has_jpeg_capability), 31
- assert_r_has_iconv_capability
 (r_has_jpeg_capability), 31
- assert_r_has_icu_capability
 (r_has_jpeg_capability), 31
- assert_r_has_jpeg_capability
 (r_has_jpeg_capability), 31
- assert_r_has_libcurl_capability
 (r_has_jpeg_capability), 31
- assert_r_has_libxml_capability
 (r_has_jpeg_capability), 31
- assert_r_has_long_double_capability
 (r_has_jpeg_capability), 31
- assert_r_has_nls_capability
 (r_has_jpeg_capability), 31
- assert_r_has_png_capability
 (r_has_jpeg_capability), 31
- assert_r_has_profmem_capability
 (r_has_jpeg_capability), 31
- assert_r_has_sockets_capability
 (r_has_jpeg_capability), 31
- assert_r_has_tcltk_capability
 (r_has_jpeg_capability), 31
- assert_r_has_tiff_capability
 (r_has_jpeg_capability), 31

- assert_r_has_x11_capability
 (r_has_jpeg_capability), 31
- assertionError, 5, 5
- assertionMessage (assertionError), 5
- assertionWarning (assertionError), 5
- assertive, 6
- assertive-package (assertive), 6
- bapply, 6, 6
- call_and_name, 7, 7
- cause, 7, 7
- cause<- (cause), 7
- changes, 7
- changes-package (changes), 7
- character_to_list_of_integer_vectors,
 8, 8
- coerce_to, 8, 8
- DIM, 8, 8
- dont_stop, 8, 8
- false, 8, 8
- get_name_in_parent, 9, 9
- has_any_attributes, 9, 9
- has_arg, 9, 9
- has_arg_ (has_arg), 9
- has_attributes, 9, 9
- has_colnames (has_names), 10
- has_cols, 9, 9
- has_dimnames (has_names), 10
- has_dims, 10, 10
- has_duplicates, 10, 10
- has_elements (is_empty), 15
- has_names, 10, 10
- has_no_attributes (has_any_attributes),
 9
- has_no_duplicates (has_duplicates), 10
- has_rownames (has_names), 10
- has_rows (has_cols), 9
- has_slot, 10, 10
- has_terms, 10, 10
- have_same_dims (are_same_length), 5
- is2, 11, 11
- is_32_bit (is_windows), 29
- is_32_bit_os (is_windows), 29
- is_64_bit (is_windows), 29
- is_64_bit_os (is_windows), 29
- is_a_bool (is_logical), 21
- is_a_complex (is_complex), 12
- is_a_double (is_numeric), 22
- is_a_missing_or_empty_string
 (is_empty_character), 15
- is_a_non_empty_string
 (is_empty_character), 15
- is_a_non_missing_nor_empty_string
 (is_empty_character), 15
- is_a_number (is_numeric), 22
- is_a_raw (is_raw), 24
- is_a_string (is_character), 12
- is_after (is_in_past), 19
- is_an_empty_string
 (is_empty_character), 15
- is_an_integer (is_integer), 19
- is_architect (is_r), 23
- is_array, 11, 11
- is_atomic, 11, 11
- is_batch_mode, 11, 11
- is_before (is_in_past), 19
- is_binding_locked, 11, 11
- is_bsd (is_windows), 29
- is_builtin_function
 (is_closure_function), 12
- is_bzfile_connection (is_connection), 13
- is_call (is_language), 20
- is_cas_number, 12, 12
- is_character, 12, 12
- is_class, 12, 12
- is_closure_function, 12, 12, 19
- is_comma_for_decimal_point
 (is_xxx_for_decimal_point), 29
- is_complex, 12, 12
- is_condition (is_try_error), 26
- is_connection, 13, 13
- is_credit_card_number, 13, 13
- is_data.frame, 13, 13
- is_data.table, 13, 13
- is_date, 13, 13
- is_date_string, 14, 14
- is_debugged, 14, 14
- is_diagonal_matrix, 14, 14
- is_dir, 14, 14
- is_divisible_by, 14, 14
- is_double (is_numeric), 22
- is_emacs (is_r), 23

- `is_email_address`, 15, 15
- `is_empty`, 15, 15
- `is_empty_character`, 15, 15
- `is_empty_file`, 15, 15
- `is_empty_model`, 15, 15
- `is_environment`, 16, 16
- `is_equal_to`, 16, 16
- `is_error` (`is_try_error`), 26
- `is_error_free`, 16, 16
- `is_even` (`is_divisible_by`), 14
- `is_ex_file` (`is_executable_file`), 16
- `is_executable_file`, 16, 16
- `is_existing`, 16, 16
- `is_existing_file`, 17, 17
- `is_expression` (`is_language`), 20
- `is_externalptr`, 17, 17
- `is_factor`, 17, 17
- `is_false` (`Truth`), 32
- `is_fifo_connection` (`is_connection`), 13
- `is_file_connection` (`is_connection`), 13
- `is_file_size_in_range` (`is_empty_file`), 15
- `is_finite`, 17, 17
- `is_formula`, 17, 17
- `is_function`, 18, 18
- `is_greater_than` (`is_equal_to`), 16
- `is_greater_than_or_equal_to` (`is_equal_to`), 16
- `is_gzfile_connection` (`is_connection`), 13
- `is_hex_color`, 18, 18
- `is_hex_colour` (`is_hex_color`), 18
- `is_honorific`, 18, 18
- `is_identical_to_false` (`Truth`), 32
- `is_identical_to_na` (`Truth`), 32
- `is_identical_to_true` (`Truth`), 32
- `is_identity_matrix`, 18, 18
- `is_if_condition`, 18, 18
- `is_imaginary` (`is_real`), 24
- `is_in_closed_range` (`is_in_range`), 19
- `is_in_future` (`is_in_past`), 19
- `is_in_left_open_range` (`is_in_range`), 19
- `is_in_open_range` (`is_in_range`), 19
- `is_in_past`, 19, 19
- `is_in_range`, 19, 19
- `is_in_right_open_range` (`is_in_range`), 19
- `is_incomplete_connection` (`is_connection`), 13
- `is_infinite` (`is_finite`), 17
- `is_inherited_from`, 19, 19
- `is_integer`, 19, 19
- `is_interactive` (`is_batch_mode`), 11
- `is_internal_function`, 19
- `is_ip_address`, 20, 20
- `is_isbn10_code` (`is_isbn_code`), 20
- `is_isbn13_code` (`is_isbn_code`), 20
- `is_isbn_code`, 20, 20
- `is_language`, 20, 20
- `is_leaf`, 20, 20
- `is_less_than` (`is_equal_to`), 16
- `is_less_than_or_equal_to` (`is_equal_to`), 16
- `is_library`, 20, 20
- `is_linux` (`is_windows`), 29
- `is_list`, 21, 21
- `is_loaded`, 21, 21
- `is_logical`, 21, 21
- `is_logical_string` (`is_numeric_string`), 22
- `is_lower_triangular_matrix`, 21, 21
- `is_mac` (`is_windows`), 29
- `is_macos_sierra` (`is_windows`), 29
- `is_matching_fixed`, 21, 21
- `is_matching_regex` (`is_matching_fixed`), 21
- `is_matrix` (`is_array`), 11
- `is_message` (`is_try_error`), 26
- `is_missing_or_empty_character` (`is_empty_character`), 15
- `is_monotonic` (`is_monotonic_increasing`), 22
- `is_monotonic_decreasing` (`is_monotonic_increasing`), 22
- `is_monotonic_increasing`, 22, 22
- `is_mts` (`is_ts`), 26
- `is_na` (`Truth`), 32
- `is_name` (`is_language`), 20
- `is_nan`, 22, 22
- `is_negative` (`is_in_range`), 19
- `is_negative_infinity` (`is_finite`), 17
- `is_nested` (`is_atomic`), 11
- `is_non_empty` (`is_empty`), 15
- `is_non_empty_character` (`is_empty_character`), 15
- `is_non_empty_file` (`is_empty_file`), 15
- `is_non_empty_model` (`is_empty_model`), 15
- `is_non_missing_nor_empty_character`

- (is_empty_character), 15
- is_non_negative (is_in_range), 19
- is_non_nested (is_atomic), 11
- is_non_positive (is_in_range), 19
- is_non_scalar (is_empty), 15
- is_not_equal_to (is_equal_to), 16
- is_not_false (Truth), 32
- is_not_matching_fixed
 - (is_matching_fixed), 21
- is_not_matching_regex
 - (is_matching_fixed), 21
- is_not_missing_nor_empty_character
 - (is_empty_character), 15
- is_not_na (Truth), 32
- is_not_nan (is_nan), 22
- is_not_null (is_null), 22
- is_not_true (Truth), 32
- is_null, 22, 22
- is_numeric, 22, 22
- is_numeric_string, 22, 22
- is_odd (is_divisible_by), 14
- is_of_dimension (is_empty), 15
- is_of_length (is_empty), 15
- is_on_os_path, 23, 23
- is_one_sided_formula (is_formula), 17
- is_open_connection (is_connection), 13
- is_ordered (is_factor), 17
- is_osx (is_windows), 29
- is_osx_cheetah (is_windows), 29
- is_osx_el_capitan (is_windows), 29
- is_osx_jaguar (is_windows), 29
- is_osx_leopard (is_windows), 29
- is_osx_lion (is_windows), 29
- is_osx_mavericks (is_windows), 29
- is_osx_mountain_lion (is_windows), 29
- is_osx_panther (is_windows), 29
- is_osx_puma (is_windows), 29
- is_osx_snow_leopard (is_windows), 29
- is_osx_tiger (is_windows), 29
- is_osx_yosemite (is_windows), 29
- is_package_current, 23, 23
- is_pairlist (is_list), 21
- is_percentage (is_in_range), 19
- is_period_for_decimal_point
 - (is_xxx_for_decimal_point), 29
- is_pipe_connection (is_connection), 13
- is_positive (is_in_range), 19
- is_positive_infinity (is_finite), 17
- is_posixct (is_date), 13
- is_posixlt (is_date), 13
- is_primitive (is_function), 18
- is_proportion (is_in_range), 19
- is_qr, 23, 23
- is_r, 23, 23
- is_r_alpha (is_r), 23
- is_r_beta (is_r), 23
- is_r_current, 25, 25
- is_r_devel (is_r), 23
- is_r_patched (is_r), 23
- is_r_release (is_r), 23
- is_r_release_candidate (is_r), 23
- is_r_revised (is_r), 23
- is_r_slave (is_batch_mode), 11
- is_r_stable (is_r), 23
- is_raster, 23, 23
- is_raw, 24, 24
- is_readable_connection (is_connection),
 - 13
- is_readable_file (is_executable_file),
 - 16
- is_real, 24, 24
- is_recursive (is_atomic), 11
- is_ref_class_generator (is_s4), 25
- is_ref_class_object (is_s4), 25
- is_relistable, 24, 24
- is_revo_r (is_r), 23
- is_rstudio (is_r), 23
- is_rstudio_current, 24, 24
- is_rstudio_desktop, 24, 24
- is_rstudio_server (is_rstudio_desktop),
 - 24
- is_s3_generic, 25, 25
- is_s3_group_generic (is_s3_generic), 25
- is_s3_internal_generic (is_s3_generic),
 - 25
- is_s3_method (is_s3_generic), 25
- is_s3_primitive_generic
 - (is_s3_generic), 25
- is_S4 (is_s4), 25
- is_s4, 25, 25
- is_s4_group_generic (is_s3_generic), 25
- is_scalar (is_empty), 15
- is_set_equal (are_set_equal), 5
- is_simple_error (is_try_error), 26
- is_simple_message (is_try_error), 26
- is_simple_warning (is_try_error), 26

- is_single_character, 25, 25
- is_slave_r (is_batch_mode), 11
- is_socket_connection (is_connection), 13
- is_solaris (is_windows), 29
- is_special_function
 - (is_closure_function), 12
- is_square_matrix, 25, 25
- is_stderr (is_connection), 13
- is_stdin (is_connection), 13
- is_stdout (is_connection), 13
- is_stepfun (is_function), 18
- is_subset (are_set_equal), 5
- is_superset (are_set_equal), 5
- is_symbol (is_language), 20
- is_symmetric_matrix, 26, 26
- is_table, 26, 26
- is_tbl, 26, 26
- is_tbl_cube (is_tbl), 26
- is_tbl_df (is_tbl), 26
- is_tbl_dt (is_tbl), 26
- is_terminal_connection (is_connection),
 - 13
- is_text_connection (is_connection), 13
- is_true (Truth), 32
- is_try_error, 26, 26
- is_ts, 26, 26
- is_tskernel (is_ts), 26
- is_two_sided_formula (is_formula), 17
- is_uk_car_licence, 27, 27
- is_uk_car_license (is_uk_car_licence),
 - 27
- is_uk_national_insurance_number, 27, 27
- is_uk_postcode, 27, 27
- is_uk_telephone_number, 27, 27
- is_unix (is_windows), 29
- is_unsorted, 27, 27
- is_unz_connection (is_connection), 13
- is_upper_triangular_matrix
 - (is_lower_triangular_matrix),
 - 21
- is_url_connection (is_connection), 13
- is_us_social_security_number, 28, 28
- is_us_telephone_number, 28, 28
- is_us_zip_code, 28, 28
- is_valid_r_code, 28, 28
- is_valid_variable_name, 28, 28
- is_vector (is_atomic), 11
- is_visual_studio (is_r), 23
- is_warning (is_try_error), 26
- is_whole_number, 29, 29
- is_windows, 29, 29
- is_windows_10 (is_windows), 29
- is_windows_7 (is_windows), 29
- is_windows_8 (is_windows), 29
- is_windows_server_2008 (is_windows), 29
- is_windows_server_2008_r2 (is_windows),
 - 29
- is_windows_server_2012 (is_windows), 29
- is_windows_server_2012_r2 (is_windows),
 - 29
- is_windows_vista (is_windows), 29
- is_writable_connection (is_connection),
 - 13
- is_writable_file (is_executable_file),
 - 16
- is_xxx_for_decimal_point, 29, 29
- is_xzfile_connection (is_connection), 13
- is_zero_matrix, 29, 29
- merge_dots_with_list, 29, 29
- n_elements, 30, 30
- na, 30, 30
- parenthesise (parenthesize), 30
- parenthesize, 30, 30
- print_and_capture, 30, 30
- r_can_build_translations
 - (r_can_find_tools), 30
- r_can_compile_code (r_can_find_tools),
 - 30
- r_can_find_java (r_can_find_tools), 30
- r_can_find_tools, 30, 30
- r_has_aqua_capability
 - (r_has_jpeg_capability), 31
- r_has_cairo_capability
 - (r_has_jpeg_capability), 31
- r_has_cledit_capability
 - (r_has_jpeg_capability), 31
- r_has_fifo_capability
 - (r_has_jpeg_capability), 31
- r_has_http_ftp_capability
 - (r_has_jpeg_capability), 31
- r_has_iconv_capability
 - (r_has_jpeg_capability), 31
- r_has_icu_capability
 - (r_has_jpeg_capability), 31

`r_has_jpeg_capability`, [31](#), [31](#)
`r_has_libcurl_capability`
 (`r_has_jpeg_capability`), [31](#)
`r_has_libxml_capability`
 (`r_has_jpeg_capability`), [31](#)
`r_has_long_double_capability`
 (`r_has_jpeg_capability`), [31](#)
`r_has_nls_capability`
 (`r_has_jpeg_capability`), [31](#)
`r_has_png_capability`
 (`r_has_jpeg_capability`), [31](#)
`r_has_profmem_capability`
 (`r_has_jpeg_capability`), [31](#)
`r_has_sockets_capability`
 (`r_has_jpeg_capability`), [31](#)
`r_has_tcltk_capability`
 (`r_has_jpeg_capability`), [31](#)
`r_has_tiff_capability`
 (`r_has_jpeg_capability`), [31](#)
`r_has_x11_capability`
 (`r_has_jpeg_capability`), [31](#)

`safe_deparse`, [31](#), [31](#)
`set_cause`, [31](#), [31](#)
`strip_attributes`, [31](#), [31](#)
`sys_get_locale`, [31](#), [31](#)
`sys_set_locale` (`sys_get_locale`), [31](#)

Truth, [32](#), [32](#)

`use_first`, [32](#), [32](#)