

The following exercises are designed to ensure that you understand Turtle syntax for RDF.

1. The following is a simple Turtle document. How many triples are represented here? What does it appear to say?

```
<http://www.w3.org/People/Berners-Lee/card#i>
  <http://www.w3.org/1999/02/22-rdf-syntax-ns#type>
  <http://xmlns.com/foaf/0.1/Person> .
<http://www.w3.org/People/Berners-Lee/card#i>
  <http://xmlns.com/foaf/0.1/name>
  "Tim Berners-Lee"@en .
<http://www.w3.org/People/Berners-Lee/card#i>
  <http://xmlns.com/foaf/0.1/name>
  "Τιμ Μπέρνερς Λι"@gr .
```

2. The above Turtle document is fairly verbose, and could be made simpler. List all the possible ways you can think of to make the document more succinct while remaining valid Turtle.

3. The following is another Turtle document. How many triples are represented here? What does it appear to say?

```
@prefix foaf: <http://xmlns.com/foaf/0.1/> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix corp: <http://www.example.org/corp#> .

<http://www.pipian.com/people/pipian/card#me> a foaf:Person;
  foaf:name "Ian Jacobi"@en, "イアン・ジャコービ"@jp ;
  foaf:age 24 ;
  <http://purl.org/vocab/relationship/collaboratesWith> [
    is corp:director of [
      rdfs:label "World Wide Web Consortium"@en ] ] .
```

4. The following is a Turtle document has a number of errors in it. Try to correct it.

```
@prefix geo http://www.w3.org/2003/01/geo/wgs84_pos#
@prefix foaf http://xmlns.com/foaf/0.1/

http://example.org/people/jlambda#me a foaf:Person geo:SpatialThing
  name "Joe Lambda" . # foaf has this property
  geo:lat "42.373611" ;
  geo:long "-71.110556" ;
```

5. Try to render the following statement in Turtle:

“Marge vs. the Monorail” is the twelfth episode of The Simpsons's fourth season and originally aired on January 14, 1993 on Fox. It was written by Conan O'Brien and directed by Rich Moore. Leonard Nimoy and Phil Hartman guest star.¹

Note that there are a number of different methods to represent this statement, but it is good practice to reuse ontologies that already exist. Thus, you may wish to use the following ontologies, descriptions of which are provided at the appropriate URIs:

The Programmes Ontology (to describe TV and radio shows), standard prefix “po:”
<<http://www.bbc.co.uk/ontologies/programmes/2009-09-07.shtml>>

RDF Schema (for labels), standard prefix “rdfs:”
<<http://www.w3.org/TR/rdf-schema/>>

Friend of a Friend (to describe people), standard prefix “foaf:”
<<http://xmlns.com/foaf/spec/>>

XML Schema Datatypes (to qualify dates and numbers), standard prefix “xsd:”
<<http://www.w3.org/TR/xmlschema-2/>>

¹ Text graciously taken from the Wikipedia article “Marge vs. the Monorail”:
<http://en.wikipedia.org/wiki/Marge_vs._the_Monorail>