# Skills Being Measured

This exam measures your ability to accomplish the technical tasks listed below.The percentages indicate the relative weight of each major topic area on the exam.The higher the percentage, the more questions you are likely to see on that content area on the exam.  
  
The information after “This objective may include but is not limited to” is intended to further define or scope the objective by describing the types of skills and topics that may be tested for the objective. However, it is not an exhaustive list of skills and topics that could be included on the exam for a given skill area. You may be tested on other skills and topics related to the objective that are not explicitly listed here.

## Implementing an SSIS Solution (17%)

* Implement control flow  
  This objective may include but is not limited to: checkpoints; debug control flow; transactions; implement the appropriate control flow task to solve a problem; data profiling and quality
* Implement data flow

This objective may include but is not limited to: debug data flow; implement the appropriate data flow components

* Implement dynamic package behavior by using property expressions
* Implement package logic by using variables

This objective may include but is not limited to: system variables; user variables; variable scope

* Implement package configurations
* Implement auditing, logging, and event handling  
  This objective may include but is not limited to: use system variables for auditing; use event handlers; propagate events; use log providers; data profiling
* Extend SSIS packages by using .NET code.  
  This objective may include but is not limited to: use the script task; use the script component; use custom assemblies

## Configuring, Deploying, and Maintaining SSIS (15%)

* Install and maintain SSIS components  
  This objective may include but is not limited to: implement disaster recovery for SSIS
* Deploy an SSIS solution  
  This objective may include but is not limited to: deploy SSIS packages by using DTUTIL; deploy SSIS packages by using the deployment utility; deploy SSIS packages to SQL or file system locations
* Manage SSIS package execution  
  This objective may include but is not limited to: schedule package execution by using SQL Server Agent; execute packages by using DTEXEC; execute packages by using SQL Server Management Studio; execute packages by using the SSIS .NET API
* Configure SSIS security settings  
  This objective may include but is not limited to: MSDB database roles; package protection levels
* Identify and resolve issues related to SSIS solution deployment  
  This objective may include but is not limited to: validate deployed packages; deploy packages and dependencies between servers

## Implementing an SSAS Solution (21%)

* Implement dimensions in a cube  
  This objective may include but is not limited to: translations; attribute relations; hierarchies
* Implement measures in a cube  
  This objective may include but is not limited to: measure groups
* Implement a data source view  
  This objective may include but is not limited to: named calculations; named queries
* Configure dimension usage in a cube  
  This objective may include but is not limited to: implement reference dimensions; implement many to many relationships; implement fact relationships; implement role-playing relationships; define granularity
* Implement custom logic in a cube by using MDX  
  This objective may include but is not limited to: actions; key performance indicators (KPI); calculated members; calculations
* Implement data mining  
  This objective may include but is not limited to: implement data mining structures and models; query data mining structures by using DMX; data mining views
* Implement storage design in a cube  
  This objective may include but is not limited to: aggregations; partitions; storage modes; proactive caching

## Configuring, Deploying, and Maintaining SSAS (17%)

* Configure permissions and roles in SSAS  
  This objective may include but is not limited to: server roles; SSAS database roles; cube roles; enable client application access; implement custom access to data
* Deploy SSAS databases and objects  
  This objective may include but is not limited to: Deployment Wizard; BIDS; SSMS; SSIS Analysis Services Execute DDL task
* Install and maintain an SSAS instance  
  This objective may include but is not limited to: disaster recovery
* Diagnose and resolve performance issues  
  This objective may include but is not limited to: use SQL Profiler; performance monitor counters; DMVs; Usage Based Optimization Wizard
* Implement processing options

## Implementing an SSRS Solution (17%)

* Implement report data sources and datasets  
  This objective may include but is not limited to: query types; dynamic data sources; filter location (dataset vs. query)
* Implement a report layout  
  This objective may include but is not limited to: apply conditional formatting; page configuration; headers and footers
* Extend an SSRS solution by using code  
  This objective may include but is not limited to: custom .NET assembly; private code
* Create an SSRS report by using an SSAS data source  
  This objective may include but is not limited to: MDX in an SSRS report; DMX in an SSRS report
* Implement report parameters  
  This objective may include but is not limited to: databound parameters; multi-value parameters
* Implement interactivity in a report  
  This objective may include but is not limited to: drilldown; drillthrough; interactive sorting
* Implement report items  
  This objective may include but is not limited to: matrix; table; chart; image; list; grouping
* Embed SSRS reports in custom applications  
  This objective may include but is not limited to: use the Windows Forms Report Viewer; use the Web Forms Report Viewer; use the SSRS Web service

## Configuring, Deploying, and Maintaining SSRS (13%)

* Configure report execution and delivery  
  This objective may include but is not limited to: subscriptions; report caching; schedules; snapshot history
* Install and configure SSRS instances  
  This objective may include but is not limited to: deploy an SSRS Web farm
* Configure authentication and authorization for a reporting solution  
  This objective may include but is not limited to: configure server-level and item-level role-based security; configure Windows authentication and custom authentication
* Deploy an SSRS solution  
  This objective may include but is not limited to: RS.exe scripts; Report Builder; BIDS
* Configure SSRS availability  
  This objective may include but is not limited to: key management; migrate SSRS databases