Use queries to complete each of the following exercises. Your query should produce only the record or records that provide an answer to the question.

Use the SoilProperties table found in the CedarInvasion.mdb database. Open and inspect the table before you begin. Note that each record represents a soil sample collected at a single location. Note the field names and the types of data they contain.

1. The sum of the sand, silt, and clay percentages should equal 100, but this is not true for all samples. Identify all samples where this condition is met.

   ```
   SELECT SamplePointID, PercentSand, PercentSilt, PercentClay, (PercentSand +
   PercentSilt + PercentClay) AS Sum
   FROM SoilProperties
   WHERE (PercentSand + PercentSilt + PercentClay) = 100;
   ```

2. Identify the samples where the above condition is not met. Your result set should include three records.

   ```
   SELECT SamplePointID, PercentSand, PercentSilt, PercentClay, (NZ(PercentSand, 0) +
   NZ(PercentSilt, 0) + NZ(PercentClay, 0)) AS Sum
   FROM SoilProperties
   WHERE (NZ(PercentSand, 0) + NZ(PercentSilt, 0) + NZ(PercentClay, 0)) <> 100;
   ```

3. For which samples did percent sand exceed 45?

   ```
   SELECT SamplePointID, PercentSand
   FROM SoilProperties
   WHERE PercentSand > 45;
   ```

4. What was the minimum and maximum percent silt observed in the study?

   ```
   SELECT MIN (PercentSilt) AS MinSilt, MAX (PercentSilt) AS MaxSilt
   FROM SoilProperties
   ;
   ```

   Min = 7.5 and Max = 60.

5. For which samples did the percent silt exceed the percent clay?

   ```
   SELECT SamplePointID, PercentSilt, PercentClay
   FROM SoilProperties
   WHERE PercentSilt > PercentClay
   ;
   ```

6. What was the average percent sand, percent silt, and percent clay observed in the study?

```
SELECT AVG (PercentSilt) AS SiltAvg, AVG (PercentSand) AS SandAvg, AVG
(Percentclay) AS clayAvg
FROM SoilProperties
;
```