1. Compare and contrast the float and Decimal classes' benefits and drawbacks.

The main difference is Floats and Doubles are binary floating point types and a Decimal will store the value as a floating decimal point type. So **Decimals have much higher precision and are usually used within monetary (financial) applications that require a high degree of accuracy**.

2. Decimal('1.200') and Decimal('1.2') are two objects to consider. In what sense are these the same object? Are These just two ways of representing the exact same value, or do they correspond to different internal states?

Both are of same value but one is floating point value while other is not

3. What happens if the equality of Decimal('1.200') and Decimal('1.2') is checked?

It will be True

4. Why is it preferable to start a Decimal object with a string rather than a floating-point value?

because **using floats for currency will just cause errors down the road**.

5. In an arithmetic phrase, how simple is it to combine Decimal objects with integers?

Decimal objects with integers can be combined using any arithmetic operation . Even if we add decimal objects with integers we get a combined result.

6. Can Decimal objects and floating-point values be combined easily?

**Decimal objects cannot generally be combined with floats** or instances of fractions

7. Using the Fraction class but not the Decimal class, give an example of a quantity that can be expressed with absolute precision.

No of students in the class

8. Describe a quantity that can be accurately expressed by the Decimal or Fraction classes but not by a floating-point value.

Height or weight

Q9.Consider the following two fraction objects: Fraction(1, 2) and Fraction(1, 2). (5, 10). Is the internal state of these two objects the same? Why do you think that is?

The first objects is of type fractions.Fraction but second is of type tuple. So the internal state of these two objects are not the same

Q10. How do the Fraction class and the integer type (int) relate to each other? Containment or inheritance?

Inheritance