

```

[[questions]]
type = "Tracing"
prompt.program = """
pub trait MakeNoise<T> {
  fn make_noise(self: @T) {
    println!("noise");
  }
}

pub mod dog {
  use super::MakeNoise;
  #[derive(Drop)]
  pub struct Dog {}
  impl Barking of MakeNoise<Dog> {
    fn make_noise(self: @Dog) {
      println!("bark");
    }
  }
}

pub mod cat {
  use super::MakeNoise;
  #[derive(Drop)]
  pub struct Cat {}
}

fn main() {
  let dog = dog::Dog {};
  dog.make_noise();
  let cat = cat::Cat {};
  cat.make_noise();
}
"""

```

```

answer.doesCompile = false
context = ""

```

It is not possible for a trait function to have a body in Cairo.  
 The `make\_noise` method should be declared without a body. Only the  
 implementations can have a body.

```
id = "4120c3cf-a86a-4d30-b307-4a50b2e9d627"
```

```

[[questions]]
type = "MultipleChoice"
prompt.prompt = ""

```

What line of code is correct to draw the shape `my\_shape` in the `main` function ?  
 ...

```

#[derive(Drop)]
struct Shape {}
trait Drawable<T> {
  fn draw(self: @T);
}

```

```

}
impl DrawableShape of Drawable<Shape> {
    fn draw(self: @Shape){
        println!("Drawing a shape!");
    }
}
fn main() {
    let my_shape = Shape{};
    // the line goes here
}
...
"""

prompt.distractors = ["`draw(my_shape);`", "`draw(@my_shape);`"]
answer.answer = "`my_shape.draw();`"
context = """
The `draw` method is a method implemented for the `Shape` type, so it should be
called on the `my_shape` object.
It is also possible to call the method on the snapshot of the object by using the `@`
operator, for example `Drawable::draw(@my_shape)`.
"""

id = "af789385-e4e4-4405-8fb7-049b9a51bc3b"
[[questions]]
type = "Tracing"
prompt.program = """
#[derive(Drop)]
struct ProducerType {}
#[derive(Drop, Debug)]
struct AnotherType {}
#[derive(Drop, Debug)]
struct AThirdType {}
trait Producer<T> {
    fn produce(self: T) -> u32;
}
trait Consumer<T> {
    fn consume(self: T, input: u32);
}
impl ProducerImpl of Producer<ProducerType> {
    fn produce(self: ProducerType) -> u32 {
        42
    }
}
impl TConsumerImpl<T, +core::fmt::Debug<T>, +Drop<T>, -Producer<T>> of
Consumer<T> {
    fn consume(self: T, input: u32) {
        println!("{:?} consumed value: {}", self, input);
    }
}

```

```

}
impl ThirdConsumerImpl of Consumer<AThirdType> {
  fn consume(self: AThirdType, input: u32) {
    println!("{:?} consumed value: {}", self, input);
  }
}
}
fn main() {
  let producer = ProducerType {};
  let another_type = AnotherType {};
  let third_type = AThirdType {};
  let production = producer.produce();
  another_type.consume(production);
  third_type.consume(production);
}
"""

```

answer.doesCompile = false

context = """

The code doesn't compile because there are two implementations of the trait `Consumer<T>` for the type `AThirdType`.

The implementation `TConsumerImpl` is a negative implementation of the trait `Producer<T>`, implementing the trait `Consumer<T>` for all types `T` that don't implement the trait `Producer<T>`.

The implementation `ThirdConsumerImpl` is thus redundant.

"""

id = "26b22cf1-9a7f-4a2d-98f3-34dab7a6dfcd"