Question: What about this regression model: `C ~ A` ?

- a. A should be statistically significant
- b. A should not be statistically significant

```
summary(lm(C~A))
```

```
##
## Call:
## lm(formula = C ~ A)
##
## Residuals:
##      Min      1Q   Median       3Q      Max
## -15.9753  -3.4048  -0.0059   3.2714  16.5278
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) -124.34246    1.31868  -94.29   <2e-16 ***
## A             -9.95096    0.02627 -378.80   <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 4.969 on 998 degrees of freedom
## Multiple R-squared:  0.9931, Adjusted R-squared:  0.9931
## F-statistic: 1.435e+05 on 1 and 998 DF,  p-value: < 2.2e-16
```

- Coefficient estimates:

$$C = 5B + 3 + \epsilon_B$$
$$= 5(-2A - 25 + \epsilon_A) + 3 + \epsilon_B$$
$$= -10A - 122 + 5\epsilon_A + \epsilon_B$$

Question: Does this coefficient and intercept estimate make sense?

- a. yes
- b. nope

Bayesian Network 2: