1. Additive in Batteries

1. $E(y) = 1.6 + 1.7x$

2. SSE = 5.1

3. $t = 4.14$. For a model $y = \beta_0 + \beta_1 x + \epsilon$, the assumptions are:

- ϵ is normally distributed;
- $E(\epsilon) = 0$;
- ϵ values are independent;
- $\sigma^2(\epsilon)$ is a constant $\forall x$.

4. $r = 0.92$

2. Arts vs. Health in US Metropolitan Areas

2. Slope of the regression line: 0.187; r = 0.866; p-value for two-sided test on $\beta_1 \neq 0$ is ≈ 0.

3. Courses vs. Salary

$p = 0.1375$