(1) Consider a function $f(x)$ with the property that $\lim_{x\to a} f(x) = 0$.
Now consider another function $g(x)$ also defined near a.

True or **False**. $\lim_{x\to a}[f(x)g(x)] = 0$.

(a) True, and I am confident.
(b) True, and I am not confident.
(c) False, and I am not confident.
(d) False, and I am confident.

(2) You decide to estimate e^2 by squaring longer and longer decimal approximations of $e = 2.71828\ldots$.

(a) This is a good idea because e is a rational number.
(b) This is a good idea because $y = x^2$ is a continuous function.
(c) This is a bad idea because e is irrational.
(d) This is a good idea because $y = e^x$ is a continuous function.

(3) **True** or **False**. You were once exactly 3 feet tall.

(a) True, and I am confident.
(b) True, and I am not confident.
(c) False, and I am not confident.
(d) False, and I am confident.

(4) Suppose that during half-time at a basketball game the score of the home team was 36 points.

True or **False**: There had to be at least one moment in the first half when the home team had exactly 25 points.

(a) True, and I am confident.
(b) True, and I am not confident.
(c) False, and I am not confident.
(d) False, and I am confident.