Grade Eight Sample Test Item—Problem Solving & Modeling and Data Analysis **Achievement Level: Standard Met**

China is the most populous country on Earth. India is the second most populous country on Earth. Japan is the tenth most populous country on Earth.

The population of China is approximately 1.4 x 109.

The population of Japan is approximately 1.3 x 10⁸.

The population of India can be expressed in the form $a \times 10^{b}$, where a is approximately 1.2.

Enter a reasonable value for b.

Area

Problem Solving & Modeling and Data Analysis

Using appropriate tools and strategies to solve real world and mathematical problems

Standard(s)

Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other.

Answer

[Scoring note: Programmed to accept a range of responses]