|   | Regents Exam Question  | as by Topic Page 1                                     |
|---|--|--|
| POWERS: Scientific Notation<br>www.jmap.org |  | Name:  |
| 1   | What is the value of n if the number 0.0000082 is written in the form $8.2 \times 10^{n}$ ?  |  |
|   |  | 60.5   |
| 010911a                                     |  | 6  |
| 2   | If $6.54 \times 10^{n} = 65,400$ , what is the value of n?   |  |
|   | (1) 5 $(3)$  | 3) -3  |
| 080801a                                     | (2) -5 (4  | 4) 4   |
| 3   | Expressed in scientific notation, the number 4,600,000,000 is  |  |
|   | $(1) 4.6 \times 10^{-8}$   | $(3) 4.6 \times 10^9$                                  |
| 060808a                                     | (2) $4.6 \times 10^{-9}$   | $(4) \ 0.46 \times 10^{10}$                            |
| 4   | The video of the movie Star Wars earned \$193,500,000 in rental fees during its  |  |
|   | first year. Expressed in scientific notation, the number of dol  |  |
| 080715a                                     | (1) $1935 \times 10^8$   | (3) $1.935 \times 10^6$                                |
|   | (2) $193.5 \times 10^6$  | (4) $1.935 \times 10^8$                                |
| 5   | According to the 2000 census, the population of New York State wa  |  |
| 060720a                                     | approximately inotation?   | 18,900,000. How is this number expressed in scientific |
|   | (1) $1890 \times 10^4$   | (3) $1.89 \times 10^7$                                 |
|   | $(2) 18.9 \times 10^6$   | $(4) 189 \times 10^5$                                  |
| 6   | A micron is a unit used to measure specimens viewed with a microscope. One micron is equivalent to 0.00003937 inch. How is this number expressed in scientific notation? |  |
| 080607a                                     |  |  |
|   | (1) $3.937 \times 10^{-5}$   | $(3) 3937 \times 10^{-8}$                              |
|   | $(2) 3.937 \times 10^5$  | (4) 3937×10 <sup>8</sup>                               |
| 7   | The size of a certain type of molecule is 0.00009078 inch. If this nur   |  |
| **************************************      | expressed as $9.078 \times 10^{n}$ , what is the value of n?   |  |
| 010609a                                     | (1) -5   | (3) -8   |
|   | (2) 5  | (4) 8  |
| 8   | The expression $0.62 \times 10^3$ is equivalent to   |  |
|   | (1) 0.062  | $(3) 6.2 \times 10^4$                                  |

(4)  $6.2 \times 10^2$ 

The mass of an orchid seed is approximately 0.0000035 gram. Written in scientific notation, that mass is equivalent to  $3.5\times10^n$ . What is the value of  $\underline{n}$ ? (1) -8 (3) -6 (2) -7 (4) -5

080511a

9