

2004 All-Day Sprint: Coded Quotes
School Code: _____ School Name: _____

This Sprint should be completed by students without any adult assistance. Only one answer form should be turned in by each school. This is just a worksheet on which you can scribble while you work out the answers. Be sure to turn in the YELLOW answer sheet before 2:00 in the box in room 208 Maybank.

Instructions: The four quotes below (note that there are two on the back as well) have all been encoded using the *same* substitution code that replaces letters by mathematical symbols. Your task is simply to correctly decode the quotes and the names of the people who said them.

- $(\Leftrightarrow \hbar \forall \rho \varpi \emptyset \leq) (\partial \forall \rho \equiv \int \Delta)$:
 $(\pm \forall \otimes \hbar \emptyset \pm \forall \otimes \int \Leftrightarrow \leq) (\leq \emptyset \emptyset \pm \leq) (\otimes \aleph) (\emptyset \Delta \partial \aleph \equiv) (\aleph \Delta \emptyset) (\equiv \int \otimes \hbar)$
 $(\leq \aleph \pm \emptyset \otimes \hbar \int \Delta \Gamma) (\varpi \int \neq \emptyset) (\forall) (\Delta \emptyset \equiv) (\leq \emptyset \Delta \leq \emptyset)$.

CHARLES DARWIN:
 MATHEMATICS SEEMS TO ENDOW ONE WITH SOMETHING
 LIKE A NEW SENSE.

- $(\sim \rho \emptyset \emptyset \pm \forall \Delta) (\partial \geq \leq \aleph \Delta)$:
 $(\sim \aleph \rho) (\forall) (\rho \hbar \geq \leq \int \Leftrightarrow \int \leq \otimes) (\pm \forall \otimes \hbar \emptyset \pm \forall \otimes \int \Leftrightarrow \leq) (\int \leq) (\Delta \aleph \otimes)$
 $(\cup \uparrow \leq \otimes) (\forall) (\otimes \aleph \aleph \varpi) (\infty \geq) (\pm \emptyset \forall \Delta \leq) (\aleph \sim) (\equiv \hbar \int \Leftrightarrow \hbar)$
 $(\rho \hbar \emptyset \Delta \aleph \pm \emptyset \Delta \forall) (\Leftrightarrow \forall \Delta) (\infty \emptyset) (\Leftrightarrow \forall \varpi \Leftrightarrow \uparrow \varpi \forall \otimes \emptyset \partial), (\int \otimes) (\int \leq)$
 $(\otimes \hbar \emptyset) (\pm \forall \int \Delta) (\leq \aleph \uparrow \rho \Leftrightarrow \emptyset) (\aleph \sim) (\Leftrightarrow \aleph \Delta \Leftrightarrow \emptyset \rho \otimes \leq) (\forall \Delta \partial)$
 $(\rho \rho \int \Delta \Leftrightarrow \int \rho \varpi \emptyset \leq) (\infty \geq) (\pm \emptyset \forall \Delta \leq) (\aleph \sim) (\equiv \hbar \int \Leftrightarrow \hbar) (\Delta \emptyset \equiv)$
 $(\otimes \hbar \emptyset \aleph \rho \int \emptyset \leq) (\Leftrightarrow \forall \Delta) (\infty \emptyset) (\Leftrightarrow \rho \emptyset \forall \otimes \emptyset \partial)$.

FREEMAN DYSON:
 FOR A PHYSICIST MATHEMATICS IS NOT JUST A TOOL BY
 MEANS OF WHICH PHENOMENA CAN BE CALCULATED, IT IS
 THE MAIN SOURCE OF CONCEPTS AND PRINCIPLES BY MEANS
 OF WHICH NEW THEORIES CAN BE CREATED.

- $(\Gamma \hbar) (\hbar \forall \rho \partial \geq)$:
 $(\forall \rho \Leftrightarrow \hbar \int \pm \emptyset \partial \emptyset \leq) (\equiv \int \varpi \varpi) (\infty \emptyset) (\rho \emptyset \pm \emptyset \pm \infty \emptyset \rho \emptyset \partial) (\equiv \hbar \emptyset \Delta)$
 $(\forall \emptyset \leq \Leftrightarrow \hbar \geq \varpi \uparrow \leq) (\int \leq) (\sim \aleph \rho \Gamma \aleph \otimes \otimes \emptyset \Delta), (\infty \emptyset \Leftrightarrow \forall \uparrow \leq \emptyset)$
 $(\varpi \forall \Delta \Gamma \uparrow \forall \Gamma \emptyset \leq) (\partial \int \emptyset) (\forall \Delta \partial) (\pm \forall \otimes \hbar \emptyset \pm \forall \otimes \int \Leftrightarrow \forall \varpi) (\int \partial \emptyset \forall \leq)$
 $(\partial \aleph) (\Delta \aleph \otimes). (\int \pm \pm \aleph \rho \otimes \forall \varpi \int \otimes \geq). (\pm \forall \geq) (\infty \emptyset) (\forall) (\leq \int \varpi \varpi \geq)$
 $(\equiv \aleph \rho \partial), (\infty \uparrow \otimes) (\rho \rho \aleph \infty \forall \infty \varpi \geq) (\forall) (\pm \forall \otimes \hbar \emptyset \pm \forall \otimes \int \Leftrightarrow \int \forall \Delta)$
 $(\hbar \forall \leq) (\otimes \hbar \emptyset) (\infty \emptyset \leq \otimes) (\Leftrightarrow \hbar \forall \Delta \Leftrightarrow \emptyset) (\aleph \sim) (\equiv \hbar \forall \otimes \emptyset \div \emptyset \rho) (\int \otimes)$
 $(\pm \forall \geq) (\pm \emptyset \forall \Delta).$

GH HARDY:

ARCHIMEDES WILL BE REMEMBERED WHEN AESCHYLUS IS FORGOTTEN, BECAUSE LANGUAGES DIE AND MATHEMATICAL IDEAS DO NOT. IMMORTALITY MAY BE A SILLY WORD, BUT PROBABLY A MATHEMATICIAN HAS THE BEST CHANCE OF WHATEVER IT MAY MEAN.

- $(\leq \aleph \rho \hbar \int \forall) (\neq \aleph \div \forall \varpi \emptyset \div \leq \neq \forall \geq \forall)$:
 $(\int \otimes) (\int \leq) (\int \pm \rho \aleph \leq \leq \int \infty \varpi \emptyset) (\otimes \aleph) (\infty \emptyset) (\forall)$
 $(\pm \forall \otimes \hbar \emptyset \pm \forall \otimes \int \Leftrightarrow \int \forall \Delta) (\equiv \int \otimes \hbar \aleph \uparrow \otimes) (\infty \emptyset \int \Delta \Gamma) (\forall) (\rho \aleph \emptyset \otimes)$
 $(\int \Delta) (\leq \aleph \uparrow \varpi).$

SOPHIA KOVALEVSKAYA:

IT IS IMPOSSIBLE TO BE A MATHEMATICIAN WITHOUT BEING A POET IN SOUL.