PERSON PUZZLE — SOLVING EQUATIONS WITH RADICALS

NAME _____ DATE _____

STEPHEN HAWKING

One of the most influential scientific thinkers of the 20th century, Stephen Hawking (1942 -) is a theoretical physicist with many significant discoveries in his field. In addition to his highly respected scientific work, Hawking is a bestselling author. He continues his research despite suffering from amyotrophic lateral sclerosis (ALS), a degenerative disease which now leaves his body nearly completely paralyzed.

DIRECTIONS: Solve each equation for the unknown variable. The word or phrase next to the correct answer will complete the statement correctly.

1. $\sqrt{x} = 11$

Stephen Hawking was born in _____.
- a. $x = 121$ England
- b. $x = 3.32$ Ireland
- c. $x = 22$ the United States

2. $\sqrt{w - 4} = 5$

Hawking enrolled in _____ and studied physics and chemistry.
- a. $w = 81$ New York University
- b. $w = 21$ University of Cambridge
- c. $w = 29$ University of Oxford

3. $\sqrt{\dfrac{p}{4}} = 3$

In an attempt to be more social at college, Hawking joined the _____.
- a. $p = 2.25$ Alpha Phi fraternity
- b. $p = 36$ rowing team
- c. $p = 144$ student government

4. $\sqrt{6k} = 54$

At age 21, Hawking was diagnosed with ALS, which is also known as _____, and doctors gave him two years to live.
- a. $k = 28$ Five P Minus
- b. $k = 486$ Lou Gehrig's Disease
- c. $k = 81$ multiple sclerosis

5. $-8 + \sqrt{5b - 5} = -3$

While losing control of his body and speech, Hawking dove into his research on _____.
- a. $b = 6$ black holes
- b. $b = 4$ nanocomputers
- c. $b = 10$ nuclear energy

6. $20\sqrt{-9d} = 120$

His research showed it was essential to unify Einstein's Theory of Relativity with _____; one of the greatest discoveries of the century.
- a. $d = 4$ the Big Bang Theory
- b. $d = -4$ Quantum Theory
- c. $d = 6$ the Laws of Thermodynamics

7. $\sqrt{2t - 4} = t - 6$

Now nearly fully paralyzed, Hawking uses a _____ to communicate and continues to write papers and books.
- a. $t = 6$ artificial intelligence droid
- b. $t = 8$ neural-nano implant
- c. $t = 10$ speech generating device

8. $\sqrt{5m + 4} - m = -2$

In 2007, to inspire people with disabilities Hawking participated in a zero-gravity flight in a _____ and experienced weightlessness 8 times.
- a. $m = 3$ "Breakneck Blimp"
- b. $m = 6$ "Roughrider Rocket"
- c. $m = 9$ "Vomit Comet"

SHOW YOUR WORK

1. $\sqrt{x} = 11$

2. $\sqrt{w-4} = 5$

3. $\sqrt{\dfrac{p}{4}} = 3$

4. $\sqrt{6k} = 54$

STEPHEN HAWKING

5. $-8 + \sqrt{5b-5} = -3$

6. $20\sqrt{-9d} = 120$

7. $\sqrt{2t-4} = t-6$

8. $\sqrt{5m+4} - m = -2$