Extreme Expone

Welcome to the *Yeccch* Games, where you'll see all the extreme sports that didn't quite make it into that *other* famous competition. Be sure to check out Piano Juggling, where balance and strength are the *keys* to success. Freestyle Rocking Horse should be great, too—so long as the athletes have had their naps. And don't miss Tiger Bathing. (This year, we think we have enough Band-Aids to go around.) If none of these sports interest you, try our *exponent* practice test. You won't win any medals, but, hey, it sure beats shampooing an angry tiger.

test by Laurie Boswell

nts!

For problems 1 to 6, fill in the circle of the correct answer.

1. It's pretty hard to score a run in Yeccch Games baseball—there are 81 bases instead of 3! While you're waiting for the first run of the game, name the base in the equation $3^4 = 81$.

Ⓐ 3   Ⓑ 4   Ⓒ 81   Ⓓ 3^4

2. Coco Kholy is a famous cola surfer. (Her sponsor, Choka-Cola, pays her to surf in a pool of soda instead of the ocean.) Coco received a score of 2 from each of the 3 judges. What number would you use as the *exponent* when you write the expression $2 \times 2 \times 2$ in exponential form?

Ⓐ 8   Ⓑ 6   Ⓒ 3   Ⓓ 2

3. Moe Lehr is one of the best Extreme Dental Work athletes around! While Moe undergoes agonizing oral surgery for his fans to watch, he works on exponents to take his mind off the pain! Be like Moe: Write the expression $6 \times 6 \times 6 \times 6 \times 6$ in exponential form.

Ⓐ 6×5 Ⓑ 5^6 Ⓒ 7,776   Ⓓ 6^5

4. Rhea Cytal, the best piano juggler in the world, can juggle three baby-grand pianos at once—while playing a Mozart concerto! Rhea has no equal, but two of the following expressions are equal. Which are they?

Ⓐ 1^5 and 5^1
Ⓑ 3^2 and 2^3
Ⓒ 4^2 and 2^4
Ⓓ 3^1 and 1^3

5. Time for In-Line Waiting, where athletes wait in line to buy tickets for events better than piano juggling. To find out the number of minutes Izzie Tyred waited in line, find the value of 5^3.

Ⓐ 15   Ⓑ 125   Ⓒ 53   Ⓓ 243

6. In Freestyle Rocking Horse, Rider Pohney pulled the great 216 trick—he fell off the toy horse 216 times! Try a less dangerous trick: Solve for x in $6^x = 216$.

Ⓐ 3   Ⓑ 6   Ⓒ 9   Ⓓ 36

For problems 7 to 10, write in the correct answer.

7. Derek Cheeta is a champion Tiger Bather. Judge #1 gave him a score of 2^5. Judge #2 gave him a score of 5^2. (The tiger just gave him a really nasty look and growled.) Which judge gave Derek the better score? Explain your answer.

8. Juana Kross is great at Moto-Crossword Puzzles. She answers 3-down and 5-across while riding a motorcycle. (The answers were "compound" and "fracture.") Juana knows that $3^5 = 243$. Describe an easy way for her to find the value of 3^6.

9. Joni Squawk is one of the best skatebored-ers—she stands perfectly still on her board until the crowd gets bored and leaves. While we wait for her to do *anything*, put these numbers in order from least to greatest: $4, 8^2, 2^5, 4^2, 8$

10. The event was supposed to be BMX racing, but Sam Whitch misheard it as "BLT making." He made a giant bacon, lettuce, and tomato sandwich. Sam divides the sandwich into 2 pieces. Then he divides each of those into 2 pieces, and repeats the process 3 more times. How many sandwich pieces did Sam wind up with?