MATHEMATICS 89

FINAL EXAM **Fall 2008 VERSION Ned**

STUDENT NAME: _____

INSTRUCTOR NAME: _____

SECTION: _____

- This exam has 25 questions. Each question is worth 4 points.
- Show sufficient work to support your answers. If you do not show your work when indicated, you may lose points, EVEN IF YOU HAVE THE CORRECT FINAL ANSWER.
- This is a closed book exam. No notes, no books allowed.
- No calculators allowed.
- Write your name at the top of each page.
- Show your work in the space indicated. If you do not have enough room to work on a particular problem, you can use the back of the previous page or an extra sheet of paper. Make sure that the graders can find any work that you want graded. Write your name and student number on any extra paper.

Question	1	2	3	4	5	6	7	8	9	10	11	12	13
Score													

Question	14	15	16	17	18	19	20	21	22	23	24	25	TOTAL
Score													

NAME: _____

1. Circle the true statements below.

   $-3 < -7$

   $-6 \leq -6$

   $2 < 2$

   $2 \geq -5$

   $9 \neq 9$

2. Find $|-2.684|$.

   Answer: _____

3. Rewrite $7 \cdot 7 \cdot 7 \cdot 7 \cdot 5 \cdot 5 \cdot 5$ using exponents.

   Answer: _____

4. Reduce $\frac{30}{35}$ to lowest terms.

   Answer: _____

5. Find the LCM of 28 and 42.

   Answer: _____

6. Find $\frac{16}{35} \div \frac{4}{7}$. Write your answer in lowest terms.

   Answer: _____

NAME: _____

7. Find $\frac{9}{10} - \frac{1}{15}$. Write your answer in lowest terms.

Answer: _____

8. Find $-478 - (-216)$.

Answer: _____

9. Find $(29 - 17) \div 2^2 + 3 \cdot 5$.

Answer: _____

10. Find $27 \div [(2 \cdot 3) - (5 \cdot 2) + 1]$.

Answer: _____

11. Simplify $2(6y + 2) - 10$.

Answer: _____

NAME: _____

12. What are the coefficients in the expression $3x^2 - x - 5y + 4$?

Answer: _____

13. Evaluate $10m + 2k - 8k^2$ when $m = 6$ and $k = -2$.

Answer: _____

14. Solve $x + 11 = 46$ for x.

Answer: _____

15. Solve $4(w + 3) - 2w = w + 7$ for w.

Answer: _____

16. The score on a certain college entrance exam can be written as $S = 300 + 20R - 5W$, where S is the score, R is the number of correct answers, and W is the number of incorrect answers. Solve the equation $S = 300 + 20R - 5W$ for W.

Answer: _____

NAME: _____

17. The sum of four consecutive integers is 58. What is the LARGEST of these integers?

Answer: _____

18. Ernest is 4 years more than 19 times as old as Angelica. If the sum of their ages is 84, how old is Ernest?

Answer: _____

19. When the unequal side of an isosceles triangle is increased by 3 inches, the triangle becomes an equilateral triangle. If the perimeter of the isosceles triangle was initially 24 inches, how long was each side of the original triangle?

Answer: _____

NAME: _____

20. Solve $x + 2 \leq 11$.

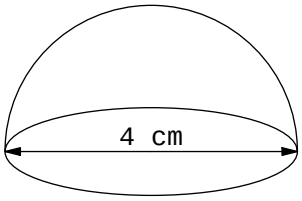
Answer: _____

21. Solve $-24 \leq 6 - 3y < 9$.

Answer: _____

22. Below, draw a number line, and graph the inequality $5 \leq x < 9$.

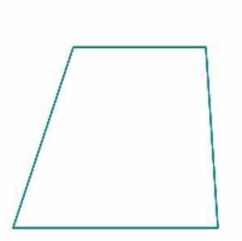
23. What is the volume of the hemisphere below? In answering this question, do not approximate π—instead, leave π in your answers.



Answer: _____

24. The polygon below has four sides, two of which are parallel. What is the name of this shape? Be as specific as possible.

Answer: _____



25. What is the total surface area of the cylinder below? In answering this question, do not approximate π—instead, leave π in your answers.

Answer: _____