

SCRANTON PREPARATORY SCHOOL
ENTRANCE EXAMINATION
ARITHMETIC

Time: 60 Minutes

December 1, 2007

DIRECTIONS: Do all problems in order in the blue examination book. Please be neat. Do not do more than four problems on each page of the blue examination book. Do not change fractions to decimals or decimals to fractions in problems one to fourteen inclusive. Calculators may not be used. Place your final answer in its simplest form in the proper blank on the answer sheet. Since you will be given credit for answers only, you should be very careful when placing your final answer on the answer sheet. In the word problems, make sure you answer the question that is asked.

1. Add: $\frac{7}{9} + 27\frac{2}{3} + 35 + 4\frac{3}{4}$

2. Add: $3.5 + 256 + 0.024 + 16.456$

3. Subtract 12.473 from 36.28

4. Subtract .739 from 73.9

5. Subtract $174\frac{5}{6}$ from $221\frac{3}{8}$

6. Subtract $16\frac{2}{7}$ from 23

7. Multiply 5.607 by 10.9

8. Multiply 12.8 by .0065

9. Multiply $1\frac{7}{9}$ by $\frac{3}{32}$

10. Multiply $1\frac{14}{15}$ by $3\frac{1}{8}$

✓ 11. Divide .28222 by 206

12. Divide 1.4112 by .028

13. Divide $5\frac{5}{6}$ by $4\frac{3}{8}$

14. Divide 45 by $6\frac{7}{8}$

15. Find 4 percent of 763.

16. 44 is what percent of 2200?

17. 124 is 80 percent of what number?

18. If $g \otimes h$ is defined as $\frac{g(h+4g)}{h^2-2g^2}$, evaluate $4 \otimes 9$.

19. If there are 16 pods in 4 clods and 10 clods in 1 zod, how many pods are there in 5 zods?

20. When the difference of a number and 12 is divided by the sum of 15 and 19, and that quotient is multiplied by 32, the result is 64. What is the number?
21. At a local grocery store, Jamie spent \$18.75 buying an equal number of limes and lemons. Limes cost 42 cents each and lemons cost 33 cents each. How many of each did Jamie buy?
22. In a recent high school election, Mark received 529 votes, Karen received 421 votes, and Kevin received 265 votes. If 90% of those eligible to vote did so, what was the number of eligible voters?
23. For a school fundraiser, Sarah sold $\frac{3}{4}$ of her allotted total of candy bars for \$1.25 each. If she had 15 candy bars left, how much money did Sarah collect for the candy bars she sold?
24. Last year Frank entered five hot dog-eating contests. In each contest, he successfully ate one more hot dog than in the previous contest. If he ate a total of 200 hot dogs in all five contests, how many did Frank eat in the first contest?
25. A freshman class contains an equal number of boys and girls. If 60 of the freshman girls leave school early to participate in a service project, then there will be five times as many freshman boys as freshman girls in school. What is the number of students in the freshman class?

Arithmetic Answer Sheet

1. $68\frac{7}{36}, \frac{2455}{36}$

2. 275.98

3. 23.807

4. 73.161

5. $46\frac{13}{24}, \frac{1117}{24}$

6. $6\frac{5}{7}, \frac{47}{7}$

7. 61.1163

8. $.0832$

9. $\frac{1}{6}$

10. $6\frac{1}{24}, \frac{145}{24}$

11. $.00137$

12. 50.4

13. $1\frac{1}{3}, \frac{4}{3}$

14. $6\frac{6}{11}, \frac{72}{11}$

15. 30.52

16. $2\%, 2$

17. 155

18. $2\frac{2}{49}, \frac{100}{49}$

19. 200

20. 80

21. 25

22. 1350

23. $\$56.25$

24. 38

25. 150

EXAMINATION NUMBER _____

ARITHMETIC SCORE _____