

SCRANTON PREPARATORY SCHOOL
ENTRANCE EXAMINATION
ARITHMETIC

Time: 60 Minutes

December 6, 2003

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: $372.021 + 16 + 4.7 + 0.278 + 24.61$

2. Add: $7\frac{3}{4} + \frac{5}{6} + 3 + 2\frac{7}{10}$

3. Subtract 47.28 from 54.64

4. Subtract .444 from 222

5. Subtract $13\frac{7}{11}$ from 24

6. Subtract $4\frac{5}{6}$ from $7\frac{4}{7}$

7. Multiply 40.5 by 6.304

8. Multiply .000372 by 4.3

9. Multiply $\frac{5}{12}$ by $6\frac{5}{9}$

10. Multiply $2\frac{4}{5}$ by $4\frac{3}{8}$

11. Divide 148.8 by .24

12. Divide 7.015 by 23

13. Divide $6\frac{2}{5}$ by $3\frac{1}{15}$

14. Divide $8\frac{1}{6}$ by 7

15. 160 is 40 percent of what number?

16. 183 is what percent of 244?

17. Find 42 percent of 650.

18. If $g \blacklozenge h$ is defined as $\frac{hg + g}{h^2 - \frac{1}{4}h}$, evaluate $16 \blacklozenge \frac{1}{2}$

19. When a number is divided by 7, the remainder is 5. When 4 times this number is divided by 7, what is the remainder?

20. Jim has 3 times as many baseball cards as Joe. Joe has $\frac{2}{3}$ as many baseball cards as Tom. Tom has 54 baseball cards. How many baseball cards does Jim have?
21. Mr. Kennedy recorded the test grades for his eighth grade class of 25 students. He used the grades recorded to calculate the average to be 72. Jeannie's grade of 86 was incorrectly recorded as 36. What was the correct average for the test?
22. When Ronald visited McDonald's farm, he saw that the farm only raised chickens and pigs. Ronald counted 38 heads and 100 feet in the barnyard. How many pigs were in McDonald's barnyard?
23. Spiffy Cleaners decided to raise the price of dry cleaning a sports coat from \$4.00 to \$5.00. The same percentage increase was applied to dry cleaning a jacket. The old cost of dry cleaning a jacket was \$10.00. What was the new cost of dry cleaning a jacket?
24. Ann's home gym set has 5 lb and 10 lb dumbbells for weight lifting. She has 15 dumbbells in all. The total weight of the 5 lb dumbbells is the same as the total weight of the 10 lb dumbbells. What is the total weight of the dumbbells?
25. Jack was offered a summer job with a cycle dealer for 7 weeks. He was to have earned \$940 plus a new bicycle. But Jack didn't enjoy the job, so he quit after 4 weeks. The owner gave him \$400 and the new bicycle. How much was the bicycle worth?

Arithmetic Answer Sheet

1. $\underline{417.609}$

2. $\underline{14\frac{17}{60} ; \frac{857}{60}}$

3. $\underline{7.36}$

4. $\underline{221.556}$

5. $\underline{10\frac{4}{11} ; \frac{114}{11}}$

6. $\underline{2\frac{31}{42} ; \frac{115}{42}}$

7. $\underline{255.312}$

8. $\underline{.0015996}$

9. $\underline{2\frac{79}{108} ; \frac{295}{108}}$

10. $\underline{12\frac{1}{4} ; \frac{49}{4}}$

11. $\underline{620}$

12. $\underline{.305}$

13. $\underline{2\frac{2}{23} ; \frac{48}{23}}$

14. $\underline{1\frac{1}{6} ; \frac{7}{6}}$

15. $\underline{400}$

16. $\underline{75\% ; 75 ; 75 \text{ percent}}$

17. $\underline{273}$

18. $\underline{192}$

19. $\underline{6}$

20. $\underline{108 ; 108 \text{ cards}}$

EXAMINATION NUMBER _____

21. $\underline{74}$

22. $\underline{12 ; 12 \text{ pigs}}$

23. $\underline{\$12.50}$

ARITHMETIC SCORE _____

24. $\underline{100 ; 100 \text{ lbs}}$

25. $\underline{\$320}$