

**SCRANTON PREPARATORY SCHOOL**  
**ENTRANCE EXAMINATION**  
**ARITHMETIC**

Time: 60 Minutes

December 2, 2006

**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:  $\frac{7}{8} + 32\frac{3}{4} + 16 + 7\frac{2}{3}$

2. Add:  $2.7 + 0.378 + 54 + 2.7495 + 132.4$

3. Subtract 172.278 from 3,236.58

4. Subtract .24 from 25

5. Subtract  $35\frac{5}{8}$  from  $42\frac{1}{6}$

6. Subtract  $12\frac{7}{10}$  from 15

7. Multiply 70.06 by 2.147

8. Multiply 4.62 by .0057
9. Multiply  $1\frac{17}{18}$  by  $1\frac{5}{7}$
10. Multiply  $\frac{7}{12}$  by  $2\frac{1}{3}$
11. Divide 351 by .65
12. Divide 139.15 by 46
13. Divide  $7\frac{1}{3}$  by  $5\frac{5}{9}$
14. Divide  $7\frac{4}{5}$  by 13
15. 180 is 60 percent of what number?
16. 42 is what percent of 840?
17. Find 81 percent of 1200.
18. If  $b \square c$  is defined as  $b^2 + 3c - bc$ , evaluate  $(4 \square 5) \square 2$
19. If there are 10 beeps in 40 zeeps and 20 zeeps in 1 creep, how many creeps are there in 30 beeps?

20. At a certain photography store, it costs Matt \$1.65 for the first print of a photograph and \$0.85 for each additional print of the same photograph. How many prints of a particular photograph can Matt get for \$20?
21. A painter charges \$12 an hour while his nephew charges \$9 an hour. If both work the same amount of time together on a job, how many hours does each of them work if their combined charge for labor is \$525?
22. A scene in a Prep production calls for balloons to be placed on stage in the order: white, purple, purple, gold, gold, gold, white, purple, purple, gold, gold, gold, etc. If this pattern continues, how many purple balloons will be on stage if a total of 70 balloons have been used?
23. A string of Christmas lights blinks every 12 seconds. Another string blinks every 15 seconds. If both strings blink simultaneously, after how many seconds will they blink simultaneously again?
24. A vault holds only 8-ounce tablets of gold and 6-ounce tablets of silver. If there are 130 ounces of gold and silver combined, what is the greatest number of ounces of gold that can be in the vault?
25. The total fare for 5 adults and 7 children on an excursion boat is \$66. If each child's fare is  $\frac{1}{3}$  of each adult's fare, what is the adult fare?

Arithmetic Answer Sheet

1.  $57\frac{7}{24}, \frac{1375}{24}$

2.  $192.2275$

3.  $3064.302$

4.  $24.76$

5.  $6\frac{13}{24}, \frac{157}{24}$

6.  $2\frac{3}{10}, \frac{23}{10}$

7.  $150.41882$

8.  $.026334$

9.  $\frac{10}{3}, 3\frac{1}{3}$

10.  $\frac{49}{36}, 1\frac{13}{36}$

11.  $540$

12.  $3.025$

13.  $\frac{33}{25}, 1\frac{8}{25}$

14.  $\frac{3}{5}$

15.  $300$

16.  $5\%, 5$

17.  $972$

18.  $105$

19.  $6$

20.  $22$

21.  $25$

22.  $24$

23.  $60$

24.  $112$

25.  $\$9$

EXAMINATION NUMBER \_\_\_\_\_

ARITHMETIC SCORE \_\_\_\_\_