



## Example

Legend has it that a 14<sup>th</sup> Century Taoist monk created this ancient martial art, while watching the battle between a crane and a snake in a dance to the death.

It was not available to the general public for hundreds of years.

Today, touted as an excellent activity for people of any age with neurological impairments,

## Pre-Entrance Trades Test - Math

**Example Questions** - Answer Key at end of exam

All the Math questions have multiple choice answers. If the answer does not appear as a choice, you may choose **NG** . not given.

1.  $4 \times 6 =$ 
  - a) 64
  - b) 24**
  - c)  $6 \frac{1}{4}$
  - d) .4
  - e) NG
  
2.  $42 + 23 =$ 
  - a) 19
  - b) 29
  - c) 56
  - d) 64
  - e) **NG**

**There are several types of math problems on the tests including whole numbers, fractions, decimals, ratio and proportion, percent, roots and powers, algebra and finally circumference, area and volume.**

### **I. WHOLE NUMBERS**

1.  $7589 + 654 + 2694 + 7501 =$
2.  $4500 \cdot 786 =$
3.  $895 \times 64 =$
4.  $7895 \div 56 =$
5. Is the sum of 4659 and 1458 greater than the difference between 45698 and 34891
  - a) yes
  - b) no

## II. FRACTIONS (answers as fractions)

6.  $16 \frac{3}{4} + 19 \frac{3}{5} =$
7.  $12 \frac{1}{3} \cdot 10 \frac{1}{4}$
8.  $4 \frac{1}{2} \div 2 \frac{1}{4}$
9. Which of the following fractions is the smallest?
  - a)  $\frac{3}{4}$
  - b)  $\frac{1}{2}$
  - c)  $\frac{7}{16}$
  - d)  $\frac{17}{32}$

## III. DECIMALS

10.  $15.6 \times 0.032 =$
11.  $59.65 \div 7.4 =$
12.  $15 + 4.45 + 0.8 + 446.4 =$
13. Write 0.564 as a common fraction
14. Express  $6 \frac{3}{8}$  as a decimal number

## IV. RATIO AND PROPORTION

15. If  $N/16 = 3/4$ ,  $N =$
- 16.

## VI. ROOTS AND POWERS

23.  $0.6^2 =$
24.  $\frac{1}{2}625$
25. Which of the following numbers is the largest?
  - a)  $\frac{1}{2}900$
  - b)  $6^2$
  - c)  $3^3$
  - d)  $2^4$

## VII. ALGEBRA

26. If  $32 = 7N \cdot 3$ , then  $N =$
27. If  $D = F/E$ , then  $F =$
28. If  $2X/4 + 3 = 7$ , then  $X =$
29. If  $5/9 (F-32) = C$ , Calculate  $C$  when  $F = 68$
30. A machinist needs to use two shims with a combined thickness of 0.084. One shim is to be three times as thick as the other. What are the thickness of the shims?

## Math Answer Key:

### I. WHOLE NUMBERS

1. 18,438
2. 3,714
3. 57,280
4. 140 and 55 remainder
5. b) no

### II. FRACTIONS

6.  $36 \frac{7}{20}$
7.  $2 \frac{1}{12}$
8. 2
9. g)  $\frac{7}{16}$

### **III. DECIMALS**

- 10. 0.499
- 11. 8.06
- 12. 466.65
- 13.  $141/250$
- 14. 6.375

### **IV. RATIO AND PROPORTION**

- 15.  $N = 12$
- 16. 15 kL
- 17. 2668 RPM

### **V. PERCENT**

- 18. 5.34
- 19. 5%
- 20. 0.1575
- 21.  $5/1000$
- 22. \$110.40

### **VI. ROOTS AND POWERS**

- 23. .36
- 24. 25
- 25. b)  $6^2 = 36$

### **VII. ALGEBRA**

- 26.  $N = 5$
- 27.  $F = DE$
- 28.  $X = 8$
- 29.  $C = 20$
- 30. 0.021 and 0.063