Eastern Atlantic States

CARPENTERS TECHNICAL CENTERS

SAMPLE TEST

PURPOSE

The purpose of this sample examination is to give prospective applicants a study guide.

PART I - READING COMPREHENSION

Directions:

Read each passage, then choose the best answer for the question that follows the passage_

1. The early settlers of Greenland brought with them from Iceland horses, cattle, sheep, goats, and domestic hens. The most important of these animals, on the whole, were the sheep. Sheep were able to feed out all winter, as they do in America's Midwest today. Of course, it was, and still is advisable to set aside some hay for them in case of a spell of particularly bad weather.

   The Sheep provided the Greenlanders with wool for their clothing and meat to eat. Sheep milk was used to make dairy products, although the Greenlanders also kept cows for this purpose.

According to the passage, travelers from Iceland settled in

A. The Americas
B. Greenland
C. The Midwest
D. None of these

2. The huge increases in the cost of oil and gas for heating have led many people to install efficient wood stoves. For those who live in the country, wood is plentiful and free. And for those who live in the city, the cost of wood is much lower than the cost of other energy sources.

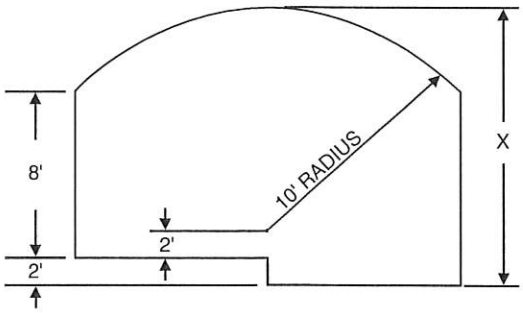
According to the passage,

A. City people cannot use wood stoves for heating
B. Wood stoves are expensive to buy
C. We are at the start of a new Ice Age
D. Many people who live in the country can get their wood for free

PART II - MECHANICAL COMPREHENSION

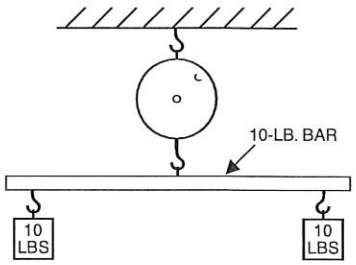
1. The distance "X" on the piece shown is

A. 16 feet B. 14 feet
C. 12 feet D. 10 feet



2. The reading on the weighing scale will be approximately

A. zero B. 10 lbs.
C. 20 lbs. D. 30 lbs.



PART III - PATTERN ANALYSIS - BOX UNFOLDING TEST

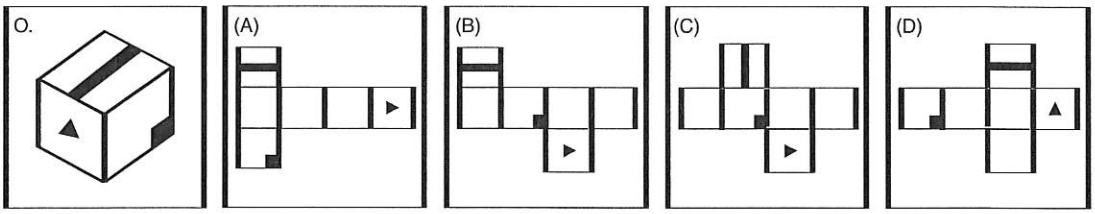
Directions:

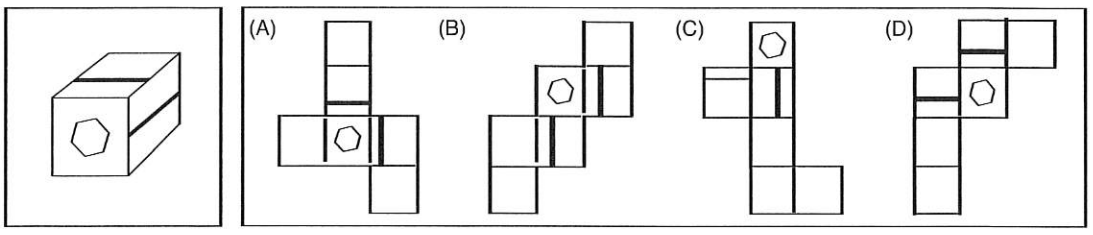
Each question in this test consists of a numbered picture showing a box that is to be unfolded. Next to each numbered box are four lettered patterns. You are to choose the only lettered pattern that could result from unfolding the box shown

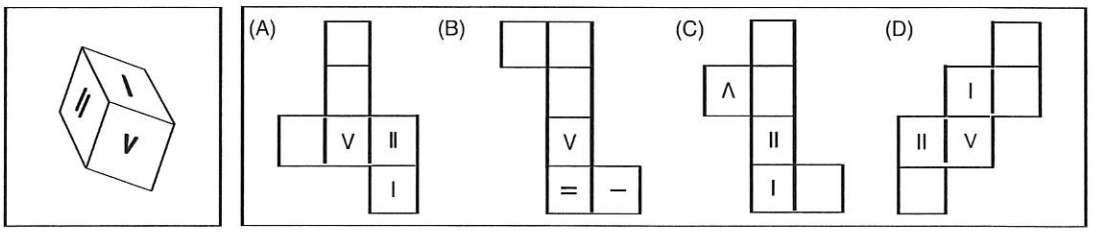
A SAMPLE QUESTION IS EXPLAINED

Explanation:

Only pattern (D) could result from unfolding the box shown. In pattern (A), the stripe is in the wrong spot. In pattern (B), all three figures are incorrectly oriented. In pattern (c) the stripe goes in the wrong direction







NUMBER SERIES

Directions:

Each question consists of a series of letters or numbers (or both) that follow some definite order. Study each series to determine what the order is. Then look at the answer choices. Circle the one answer that will complete the set in accordance with the pattern established.

l. 19 24 20 25 21 26
- A. 18
- B. 22
- C. 23
- D. 27
- E. 28

2. 25 25 22 22 19 19
- A. 18
- B. 17
- C. 16
- D. 15
- E. 14

3. 10 2 8 2 6 2
- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

4. 8 9 11 14 18 23
- A. 25
- B. 26
- C. 27
- D. 28
- E. 29

PART IV - ARITHMETIC COMPUTATIONS

Directions: Read each problem carefully and select the correct answer from the choices that follow.

1. Subtract 6 3/4 from 18 1/2
   A. 10 B. 20 1/4 C. 11 1/2 D. 11 3/4
2. Divide 16 by 3/5
   A. 26 2/3 B. 28 1/3 C. 30 1/5 D. 32 2/5
3. Subtract $4.98 from $20
   A. $24.98 B. $22.06 C. $16.42 D. $15.02
4. Divide 17.28 by 7.2
   A. 6.8 B. 4.2 C. 2.4 D. 1.5
5. Find 5 1/2% of $2,800
   A. $140 B. $154 C. $160 D. $172
6. Add $84.78; $59.50; $12.43; $66.50
   A. $202.21 B. $213.31 C. $223.21 D. 242.41
7. Subtract 731,969 from 940,614
   A. 208,645 B. 218,445 C. 228,325 D. 226,324
8. Divide 9.744 by 2.4
   A. 2.08 B. 4.06 C. 3.16 D. 5.16
9. Multiply 1 1/2 by 1 1/4 by 2/3
   A. 1 1/4 B. I 3/4 C. 2 1/4 D. 2 3/4
10. Which one of the following has the smallest value?
    A 5/8 B. .82 C. 75% D. 11/16

PART V - ARITHMETIC REASONING

Directions:

Read each problem carefully and choose the correct answer from the choices that follow.

1. If real estate tax is $1.62 per $100 assessed valuation, the tax that must be paid on property assessed at $82,200 is closest to;
   A. $152 B. $694 C. $1086 D. $1,332

2. If FICA tax is 6.13%, the FICA tax on wages of $450.70 is closest to;
   A. $27.60 B. $27.70 C. $27.80 D. $27.90

3. A champion runner ran the 100-yard dash in three track meets. The first time, she ran it in 10.2 seconds; the second in 10.4 seconds; and the third time in 10 seconds. What was her average time?
   A. 10.2 sec. B. 10.3 sec C. 10.35 sec D 10.4 sec

4. Joshua Howard is paid a yearly salary of $18,000. His monthly paycheck shows the following deductions; federal income tax, $292.20, FICA, $91.95; state tax, $42.45; pension, $4.32. What is his yearly take-home pay?
   A. 12,828.96 B. 13,366.53 C. 25,238.42 D. 17,569.08

PART VI - MATHEMATICS

Solve the following problems. Round decimals to four places and use symbols as needed.

1. 9 ft. 7 5/8 in.
   22 ft. 6 3/4 in.
   +15 ft. 11 3/16 in.
   _____

2. 17 ft. 7 1/2 in.
   -14 ft. 9 7/8 in.
   _____

3. 59° 37' 18"
   -40° 43' 22"
   _____

4. In Figure 6, which object has greater volume?
   A. _____ ; B _____ ; _____ equal

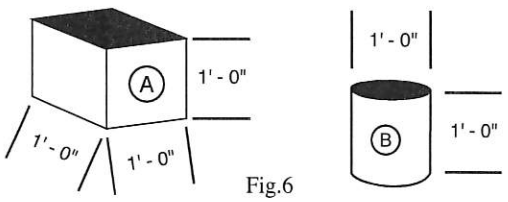


Fig.6

5. In Figure 7; if DB is perpendicular to AC and angle DBC is bisected by BX, how many degrees are there in angle 3?

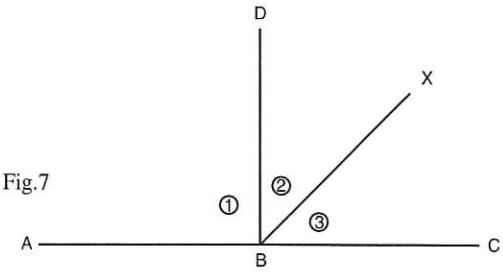


Fig.7

6. How many degrees are there in the sum of all angles in Figure 8?

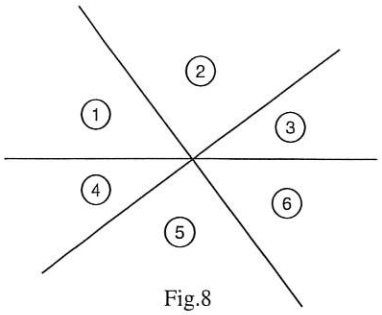


Fig.8

7. In Figure 8, which angle is equal in size to angle 2?

8. If angle 4 is 45° and angle 6 is 60°, in Figure 8, how many degrees are there in angle 2?

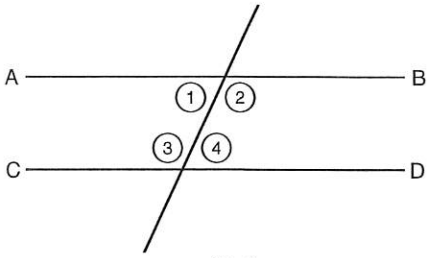


Fig.9

9. Lines AB and CD are parallel in Figure 9. Angle 1 is equal to angle

10. If angle 1 in Figure 9 equals 75° then angle 2 + angle 3 + angle 4 equals degrees.

11. What is the area of Figure 10?

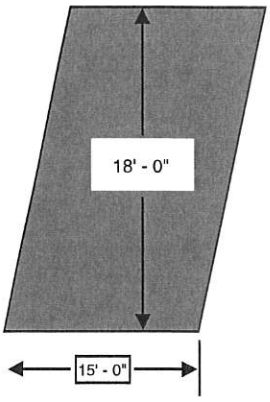


Fig.10

12. What is the area of Figure 11?

13. What is the circumference of Figure 11?

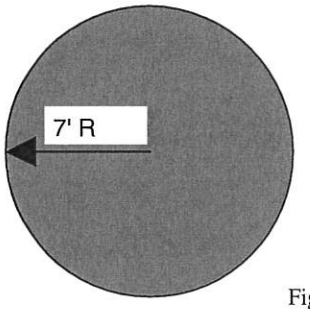


Fig.11

14. What is the area of Figure 12?

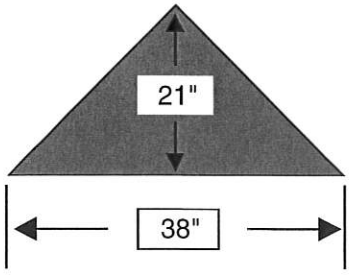


Fig.12

15. What is the volume of Figure 13A?

16. What is the volume of Figure 13B?

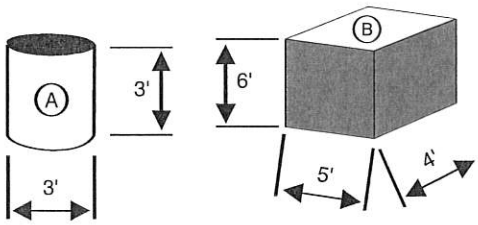


Fig.13

PART VII - MORE MATHEMATICS

Determine the sum of the following angles:

1. 13° 31' 27", 64° 12' 48"

Convert to feet

2. 1824"

3. 72 yards

Determine the area in each of the following;

4. Rectangle, length 21' 0", width 11' 0"

5. Parallelogram, base 12' 0", altitude 7' 0"

6. Triangle, base 10' 0", altitude 9' 0"

7. Triangle, base 9' 3", altitude 5' 6"

8. Circle, radius 7` 0"

Change to mixed numbers

9. 19/4=

Add

10. 3/16 + 5/8 + 1/4=

Determine perimeter of following;

11. Square 6" sides

12. Rectangle 21" x 7"

13. Octagon S=2'3"

Change fraction to a decimal (nearest hundredth)

14. 5/8" =

15. 7/16 =

16. The distance from A to B in Figure 15 is _____

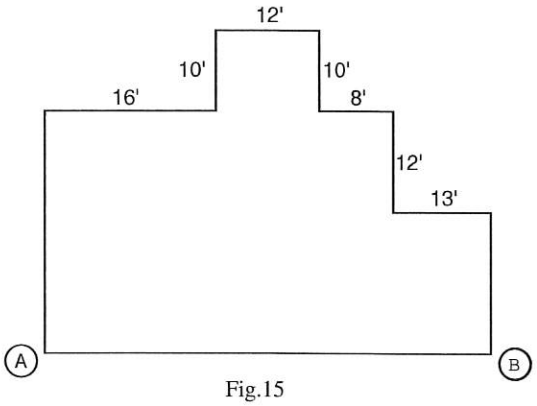


Fig.15

17. In Figure 17, what is the area of quadrant X?

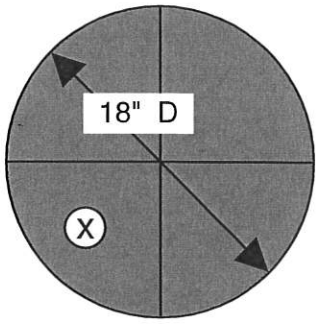


Fig.17

The following two questions are based on Figure 18.

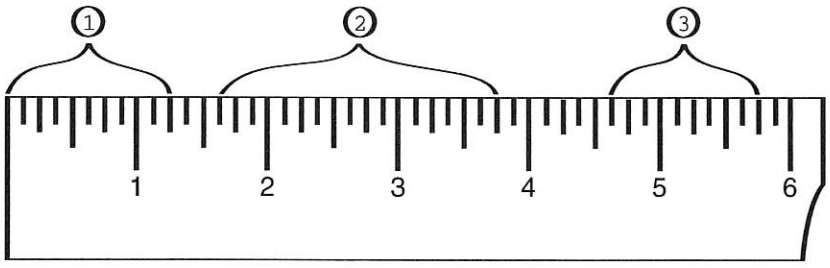


Fig.18

18. What is the measurement shown by bracket number 2?

19. What is the sum of brackets 1 + 2 + 3

20. In Figure 19, what is the length indicated by A?

21. In Figure 19, what is the width indicated by B?

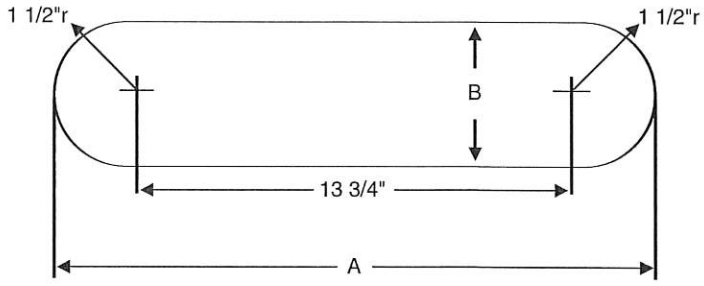


Fig.19

Convert

22. .25 to a fraction

23. .375 to fraction (nearest 1/8")

24. .417 ft. to inches

25. 7" to decimal part of a foot

Reduce to lowest terms

26. 10/16

27. 18/32