ISEE Middle Level Math Practice Test Questions

The ISEE Middle Level Mathematics Achievement tests are aligned to the standards articulated by the NCTM. Unlike the Quantitative Reasoning section, you may need to do calculations to determine the correct answer for some questions. This section will include questions from NCTM standards in the six areas listed below:

Numbers and Operations
Algebra
Geometry
Measurement
Data Analysis and Probability, and
Problem Solving

Numbers and Operations: Whole Numbers

Sample Questions

Directions: Answer the following sample question. Select the answer that best illustrates numbers and operations.

What is the least common multiple of 8, 10, and 12?

- (A) 2
- (B) 4
- (C) 120
- (D) 960

Numbers and Operations: Decimals, Percents, Fractions

A clothing store had shirts on sale at 20% off the regular price. The store then took an additional 10% off the sale price. What is the final price of a shirt originally priced at $50?

- (A) $35
- (B) $36
- (C) $40

(D) $45

Algebraic Concepts

To park a car in the Park Anytime Garage on a Sunday, the cost is $2.00 for the first hour or fraction thereof, and $0.60 for each additional whole hour or fraction of an hour thereafter. Which rule represents the total cost, T, of parking a car at this garage for n hours if n is a whole number of hours?

(A) $T = 0.6n + 2n$

(B) $T = 0.6n - 2$

(C) $T = 0.6n + 2$

(D) $T = 0.6(n - 1) + 2$

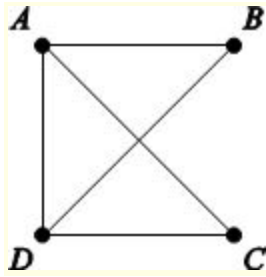What is the value of x in the equation $\dfrac{x+3}{x} = \dfrac{9}{12}$
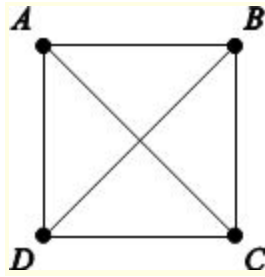
(A) 12

(B) 6

(C) -1

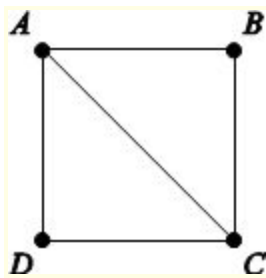(D) -12

Geometry

Sample Questions

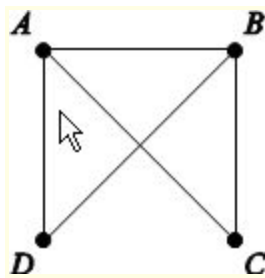Directions: Answer the following sample question. Select the answer that best illustrates geometric operations.

Network A   Network B

Network C   Network D

In the diagram above, which network best represents routes from point *A* to *B*, *A* to *C*, *A* to *D*, *B* to *D*, and *C* to *D* and does NOT include any other routes?
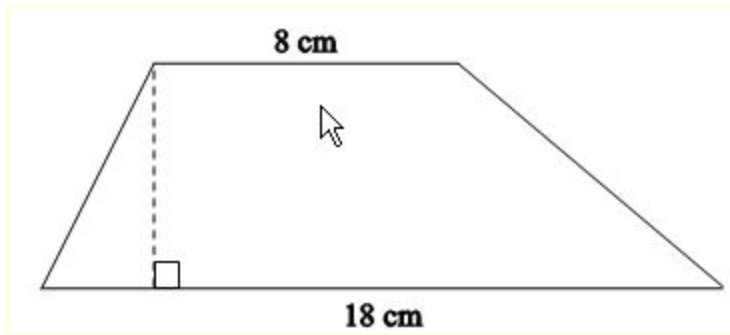
  Ⓐ Network A

  Ⓑ Network B

  Ⓒ Network C

  Ⓓ Network D

Measurement

Sample Questions

<u>Directions</u>: Answer the following sample question. Select the answer that best illustrates measurement abilities.

A trapezoid is shown.

Note: Area of a trapezoid = ½$(b_1 + b_2)h$

What is the height, h, of the trapezoid shown, if the area is 78 cm²?

Ⓐ 3.5 cm

Ⓑ 6.0 cm

Ⓒ 9.1 cm

Ⓓ 15.6 cm

Data Analysis and Probability

Sample Questions

<u>Directions</u>: Answer the following sample question. Select the answer that best illustrates data analysis and probability.

There are 4 red, 3 blue, and 6 green marbles in a bag. If one marble is to be randomly selected from the bag, what is the probability that the marble will be green?

Ⓐ $\frac{6}{7}$

B $\dfrac{6}{13}$

C $\dfrac{3}{13}$

D $\dfrac{1}{6}$