NTS GAT General Past Papers Questions

Quantitative - Exam No. 09

Conversions and Numbers

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Length conversions:

$$1 \text{ mile} = 1.609 \text{ kilometers}$$

1 kilometer = 1000 meters (PP)

1 meter = 10 decimeters

1 decimeter = 10 centimeters (PP)

1 centimeter = 10 milimeters

1 yard = 3 feet (PP)

1 feet = 30.48 cm

1 mile = 5,280 feet (PP)

Speed conversions:

1 mile per hour = 1.609 kilometer per hour

1 kilometer per hour = $\frac{5}{18}$ meter per second (PP)

 $1 meter per second = \frac{18}{5} kilometer per hour (PP)$

1 kilometer per hour = $\frac{50}{3}$ meter per minute

1 meter per minute = $\frac{3}{50}$ kilometer per hour (PP)

Angle conversions:

$$1 \ radian = 57.3 \ degrees$$

$$1 hour = 60 minutes (PP)$$

$$1 day = 86,400 seconds$$

Volume conversions:

One cubic foot = 1728 cubic inches (PP)

One cubic meter = 1,000,000 cubic centimeters

Numbers

1. Set of natural numbers:

$$N = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...\}$$

2. Set of whole numbers:

$$W = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, ...\}$$

3. Set of even numbers: (PP)

$$E = \{2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, \dots\}$$

4. Set of odd numbers: (PP)

$$0 = \{1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 1, 23, 25, 27, \dots\}$$

5. Set of prime numbers: (PP)

$$P = \{2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, \dots\}$$

6. Set of composite numbers:

$$C = \{1, 4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21, 22, \dots\}$$

7. Set of integers:

$$Z = \{0, \pm 1, \pm 2, \pm 3, \pm 4, \pm 5, \pm 6, \pm 7, \pm 8, \pm 9, \pm 10, \dots\}$$

8. Set of positive integers: (PP)

$$Z^+ = \{+1, +2, +3, +4, +5, +6, +7, +8, +9, +10, \dots\}$$

9. Set of negative integers:

$$Z^- = \{-1, -2, -3, -4, -5, -6, -7, -8, -9, -10, \dots\}$$