## Math Placement Test (MPT) Sample Test

Question 1
[1 mark]

Find the perimeter of the following shape.
a) 100 m
b) 106 m
c) 108 m (Correct Answer)
d) 110 m


Question 2
Use the given table or graph to write the inequality described.
Use an inequality to compare the number of calories in an apple and a bagel.
a) $80<155$
b) $155<165$
c) $80<165$ (Correct Answer)
d) $80>165$

| Lunch items | Calories | Grams of fat |
| :--- | :---: | :---: |
| i glass of milk (2\%) | 120 | 5 |
| Tuna salad | 350 | 22 |
| i apple | 80 | 1 |
| i bagel | 165 | 1 |
| Bowl of soup | 155 | 3 |

Question 3
The ages of patients (in years) in a clinic are 18, 3, 27, 18, 64. Find the average of all ages.
a) 3 years
b) 16 years
c) 17 years
d) 26 years (Correct Answer)

Write the shaded part of the following set of objects using the fraction notation.
a) $\frac{5}{4}$ (Correct Answer)
b) $\frac{5}{3}$
c) $\frac{3}{5}$
d) $\frac{5}{8}$


Question 5
Solve the following equations. $\frac{1}{7} x=\frac{1}{10}$
a) $\frac{1}{70}$
b) $\frac{1}{17}$
c) $\frac{7}{10}$ (Correct Answer)
d) $\frac{7}{17}$

## Question 6

A serving of filleted fish is generally considered to be $\frac{1}{3} \mathrm{lb}$. How many servings can be prepared from $9 \frac{1}{4} \mathrm{lb}$ of flounder fillet?
a) $27 \frac{3}{4}$ (Correct Answer)
b) $27 \frac{1}{4}$
c) $29 \frac{1}{4}$
d) $3 \frac{1}{12}$

An advertisement states that television sets are on sale at B\&G Electronics. The sale prices are: 13-inch set, $\$ 147.99$; 19-inch set, $\$ 208.95$; 21-inch set, $\$ 231.99$; 27 -inch set, $\$ 289.97$; 50 -inch set, $\$ 519.97$. Estimate the approximate number of 13 -inch sets that can be bought for $\$ 12,000$ by first rounding the price to the nearest ten.
a) 20
b) 80 (Correct Answer)
c) 90
d) 180

## Question 8

At an advertising agency that employs 275 people, 195 employees receive 3 weeks of paid vacation each year. Find the ratio of those who receive 3 weeks of paid vacation to those whose paid vacation is not 3 weeks.
a) $\frac{16}{39}$
b) $\frac{39}{16}$ (Correct Answer)
c) $\frac{39}{55}$
d) $\frac{55}{39}$

Question 9
On April 26, 2005, 1 U.S. dollar was worth about 0.52521 British pounds. How much would a car have cost in U.S. dollars that cost 10,140 British pounds?
a) $\$ 19,306.56$ (Correct Answer)
b) $\$ 5,536.44$
c) $\$ 18,847.58$
d) $\$ 5,325.63$

The following table shows the price of four different offers of soft drinks.

| Brand | Price (AED) | Cans |
| :---: | :---: | :---: |
| Brand A | AED 15.9 | 12 cans |
| Brand B | AED 20.9 | 18 cans |
| Brand C | AED 25.5 | 24 cans |
| Brand D | AED 35.5 | 32 cans |

Determine which brand of soft drinks is the best buy based on the unit price of each brand.
a) $\operatorname{Brand} \mathrm{A}$
b) Brand B
c) Brand C (Correct Answer)
d) Brand D

## Question 11

The sides in each pair of figures are proportional. Find the missing length $\boldsymbol{h}$.
a) 3 ft .
b) 6 ft . (Correct Answer)
c) 12 ft .
d) 16 ft .


Question 12
Find the height $\boldsymbol{h}$ of the wall.
a) 5 ft .
b) 10 ft .
c) 12 ft . (Correct Answer)
d) 22 ft .


Find the fraction notation for the percent of the population that is $0-5$ years.
a) $\frac{3}{50}$ (Correct Answer)

Population of Country X by Selected Age Categories
(Data have been rounded to the nearest percent.)
b) $\frac{1}{10}$
c) $\frac{9}{25}$
d) $\frac{7}{10}$

| Age Category | Percent of Population |
| :--- | :---: |
| $0-5$ years | $6 \%$ |
| $6-17$ years | $10 \%$ |
| $18-29$ years | $36 \%$ |
| 18 years and older | $70 \%$ |
| 65 years and older | $18 \%$ |
| 80 years and older | $4 \%$ |

## Question 14

Ahmed has AED 1800 invested in the stock market. This amounts to $25 \%$ of his total savings. How much has Ahmed saved?
a) AED 7,200 (Correct Answer)
b) AED 7,300
c) $\mathrm{AED} 7,210$
d) AED 72,000

## Question 15

A physician prescribes one 0.4 mg tablet of a medication to be taken twice a day for 8 days. How many total mcg of the medication will the patient have taken after 8 days?
a) 3.2 mcg
b) 6.4 mcg
c) 3200 mcg
d) 6400 mcg (Correct Answer)

Maha checked the outside temperature at noon one day and found it was $26^{\circ} \mathrm{C}$. At 10 PM when she checked, the outside temperature was $18^{\circ} \mathrm{C}$. How much, in degrees Fahrenheit, did the temperature drop between noon and 10 PM ? Round your answer to the nearest tenth.
a) $-17.6^{\circ} \mathrm{F}$
b) $-10.8^{\circ} \mathrm{F}$
c) $4.4^{\circ} \mathrm{F}$
d) $14.4^{\circ} \mathrm{F}$ (Correct Answer)

Question 17

A pest control company sprays insecticide around the perimeter of a 430 ft by 160 ft building. If the spray costs $\$ 0.15$ per foot, how much did the job cost to the nearest dollar?
a) $\$ 89$
b) $\$ 177$ (Correct Answer)
c) $\$ 860$
d) $\$ 10,320$

Question 18
Find the total area of the roof of the garage.
a) $42 \mathrm{ft}^{2}$
b) $104 \mathrm{ft}^{2}$
c) $208 \mathrm{ft}^{2}$ (Correct Answer)
d) $312 \mathrm{ft}^{2}$


Find the volume of the following shape.
a) $7.948 \mathrm{~m}^{3}$
b) $9.42 \mathrm{~m}^{3}$
c) $14.13 \mathrm{~m}^{3 \text { (Correct Answer) }}$
d) $113.04 \mathrm{~m}^{3}$


Question 20

A bike road race starts at an elevation of 890 feet and passes through 5 stages where the elevation changes by 53 feet, 338 feet, -686 feet, -244 feet, and -76 feet. At what elevation does the race end?
a) -2,287 feet
b) 179 feet
c) 275 feet (Correct Answer)
d) 2287 feet

