Test 2 – Questions
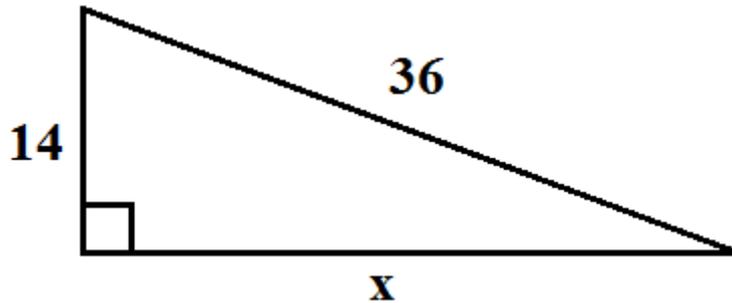
1. A water lily covers 0,8 m^2 of a pond. How much time did it take to cover the entire pond if we know that the water lily can double its surface area every month and the surface area of the pond is 409,6m^2?

   A. 8 months
   B. 9 months
   C. 10 months
   D. 11 months
   E. 12 months

2. Two points are plotted on a number line: −11.2 and 3.3. What is the distance between these two points?

   A. 7.9
   B. -7.9
   C. 14.5
   D. -14.5
   E. 15

3. Mary is taking a vacation to the countryside. She is driving 87 kilometers per hour for 3 hours and 73 kilometers per hour for 5 hours. Over the 8 hour time period, what was her average speed?

   A. 75 km/h
   B. 78,25 km/h
   C. 80 km/h
   D. 82,35 km/h
   E. 83,18 km/h

4. Clark owns a cleaning company and has to give price quotes for potential customers. He figures out his price by assuming a $25 base charge and then addig $8 for each bathroom and $4 for each other room. A customer hires him to clean his house that has a kitchen, a living room and two bedrooms with own bathrooms. How much would the customer pay for Clark's services?

   A. 32 USD
   B. 37 USD
   C. 49 USD
   D. 57 USD
   E. 60 USD

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5. Calculate the value of x for the triangle shown below.

A. x=33,16
B. x=38,62
C. x=43,58
D. x=45,31
E. x=51,33

6. Calculate the surface area of a cylinder shaped tin can of h=7 mm height and r=30 mm radius having lids on top and bottom.

A. 4823,61 mm²
B. 1110,95 mm²
C. 6974,34 mm²
D. 1627,34 mm²
E. 6284,15 mm²

7. If $\dfrac{6}{x-5} = \dfrac{4}{x}$, then x=

A. x=5
B. x=2
C. x=-2
D. x=-5
E. x=-10

8. John is taking mathematics classes where they are writing 4 test during the semester. After three tests, John has an average of 76 points out of 100. How many points does he have to earn at the fourth test if he needs an average of 80 points out of 100 to earn a better grade?

    A. 4 points
    B. 84 points
    C. 90 points
    D. 92 points
    E. 100 points

9. Tickets numbered 1 to 20 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn has a number which is a multiple of 3 or 5?

    A. p=0,1
    B. p=0,2
    C. p=0,45
    D. p=0,5
    E. p=0,53

10. If a=2 and b=3, $4a^2-3ab+b^2=$

    A. 2
    B. 3
    C. 5
    D. 7
    E. 9

11. The sum of two numbers is 31. Twice the smaller number is 11 more than the larger number. What is the value of the larger number?

    A. 16
    B. 17
    C. 18
    D. 19
    E. 20

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12. $\sqrt[3]{x^2} =$

A. $x^{\frac{2}{3}}$

B. x^{-3}

C. $x^{\frac{3}{2}}$

D. x^{-6}

E. x^6

13. 10 people meet for a business lunch. Each person shakes hands once with every other person. How many handshakes take place?

A. 10
B. 45
C. 50
D. 90
E. 100

14. A product costs 150 USD. During the discount sale its price is reduced by 15%. After the sale, the price of the product gets increased by 20%. How much would the product cost after the raise?

A. 148 USD
B. 150 USD
C. 153 USD
D. 155 USD
E. 157 USD

15. If $\sqrt[3]{x} + a = b$, then x=

A. $(b - a)^3$
B. $(a - b)^3$
C. $b^3 - a^3$
D. $a^3 - b^3$
E. $\sqrt[3]{b - a}$

Score table

Candidate's name: _____

Date: _____

Question	Answer				
1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10.	A	B	C	D	E
11.	A	B	C	D	E
12.	A	B	C	D	E
13.	A	B	C	D	E
14.	A	B	C	D	E
15.	A	B	C	D	E

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