

HMC 2011 ROUND – 1

1. Which of the following is the smallest?

- a)0.0303 b)0.033 c)0.3003 d)0.33 e)0.3030

2. $0.01 + 0.001 = ?$

- a)0.02 b)0.002 c)0.2 d)0.0011 e)0.011

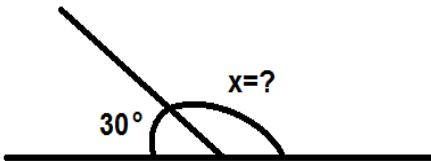
3. How many prime numbers are there in between 1 and 20?

- a)6 b)7 c)8 d)9 e)10

4. 3 million equals

- a)3x1000 b)3x100000 c)3x10000 d)3x1000000 e)3x10000000

5. Find the value of x.



- a)60 b)90 c)120 d)150 e)180

6. If $a \blacksquare b = a^2 - 2ab$, then find $5 \blacksquare 6$.

- a)35 b)-35 c)-50 d)50 e)-45

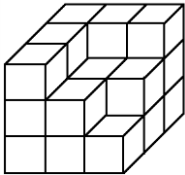
7. $\frac{3}{8} + \frac{1}{3} = ?$

- a) $\frac{3}{8}$ b) $\frac{3}{24}$ c) $\frac{4}{24}$ d) $\frac{17}{24}$ e) $\frac{10}{24}$

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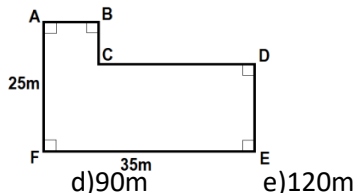
8. Josh has 22 less marbles than Adnaan. Together they have 84 marbles. How many marbles does Josh have?
- a)24 b)47 c)53 d)31 e)34
9. The sum of two numbers is 18. What is the greatest possible product of these two numbers?
- a)80 b)48 c)81 d)54 e)72
10. It takes Sihle 20 minutes to cycle to school. He wants to be at school on Saturday morning 15 minutes before a soccer match which begins at 08:30. When must he set out?
- a)08:10 b)07:55 c)08:05 d)7:50 e)8:15

11. How many unit cubes are there in the following shape?



- a)22 b)27 c)23 d)24 e)25
12. Peter, Paul and David worked in the garden. Peter worked for 3 hours, Paul worked 2 hours and David worked 1 hour. They are paid R54 for their work altogether. How much should Peter get?
- a)18 b)27 c)24 d)54 e)16

13. The perimeter of the figure ABCDEF is



- a)25m b)35m c)60m d)90m e)120m

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14. $5 + 9 \div 3 \times 2 = ?$

- a)4 b)12 c)11 d)5 e)10

15. The goal average of Liverpool is 2.5 in first 4 week. If the average increases to 2.8 at fifth week; what is the number of goals scored by Liverpool at fifth week?

- a)1 b)2 c)4 d)6 d)8

16. A concert was held in a school. Learner ticket costs R10 and adult ticket costs R16. The school sold 220 tickets for R2800. What's the number of learner ticket sold?

- a)70 b)90 c)100 d)110 e)120

17. The sum of three consecutive even integers is 102. Find the smallest number.

- a)32 b)33 c)34 d)35 e)36

18. 80% of the learners in a class pass a math exam. If eight learners failed the exam, find the number of learners in the class.

- a)32 b)10 c)20 d)16 e)40

19. What's $5xy - 3z$ if $x=2$, $y=3$ and $z=2$?

- a)28 b)22 c)20 d)26 e)24

20. Joshua constructs a rectangle by using four identical isosceles-right triangles. If the area of rectangle is 128cm^2 ; find the perimeter of rectangle.

- a)48cm b)8cm c)12cm d)24cm d)64cm