

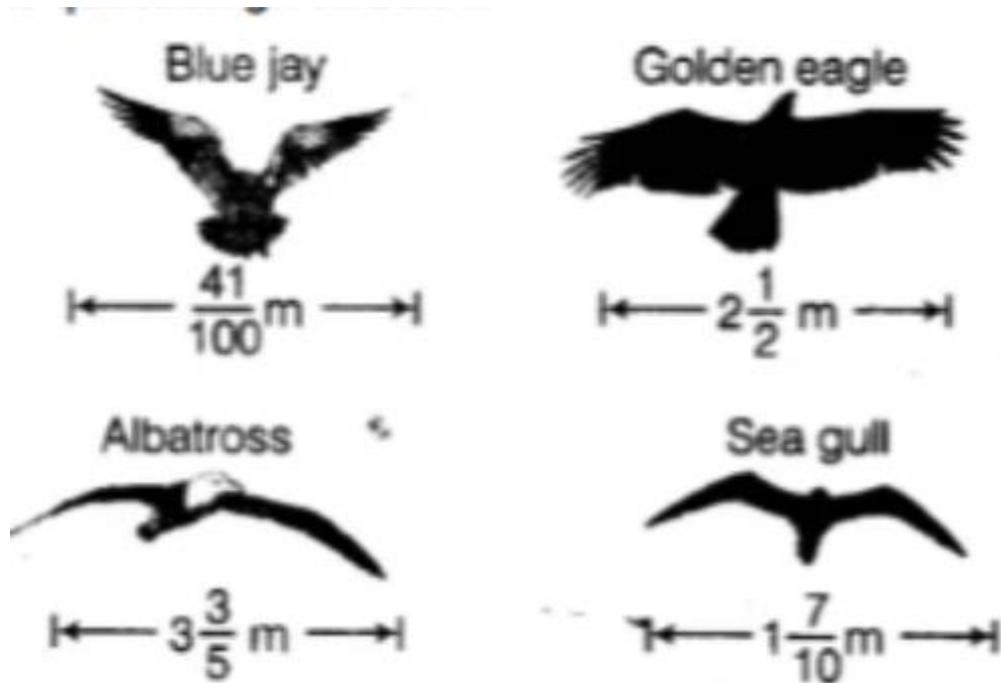
Holidays Homework

Class: VIII

Subject: Mathematics

WORKSHEET

Q1. The diagram shows the wingspans of different species of birds. Use the diagram to answer the questions given below :



(a) How much longer is the wingspan of Albatross than wingspan of Seagull?

(b) How much longer is the wingspan of a Golden eagle than the wingspan of a Blue jay?

Q2. One of the fruit salad recipe requires $\frac{1}{2}$ cup of sugar. Another recipe for the same fruit salad requires 2 tablespoons of sugar. If 1 tablespoon is equivalent to $\frac{1}{16}$ cup, how much more sugar does the first recipe require?

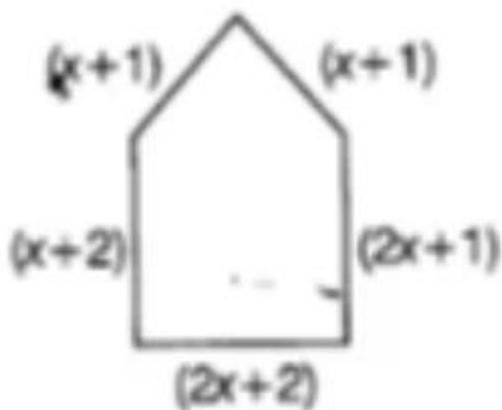
Q3. On a winter day temperature at a certain place in Himachal Pradesh was -16°C . Convert it into $^{\circ}\text{F}$ by using the formula :

$$\frac{C}{5} = \frac{F - 32}{9}$$

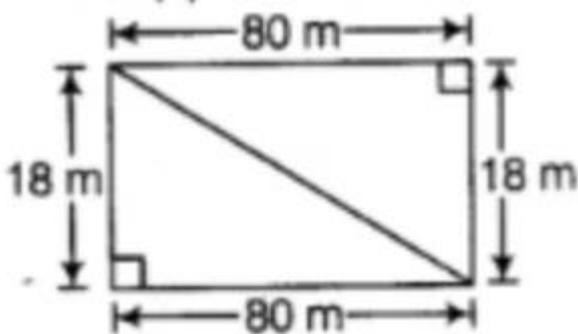
Q4. Manvi and Kuber each receives an equal allowance. The table shows the fraction of their allowance each deposits into his/her savings account & the fraction each spends at the mall. If the allowance of each is RS.1260, find the amount left with each.

Where money goes	Fraction of allowance	
	Manavi	Kuber
Saving account	$\frac{1}{2}$	$\frac{1}{3}$
Spend at mall	$\frac{1}{4}$	$\frac{3}{5}$
Left over	?	?

Q5. For what value of x is the perimeter of the shape 77cm?



Q6. The dimensions of rectangular field are 80m and 18m. Find the length of its diagonal.



Q7. Write a pythagorean triplet whose smallest number is 6.

Q8. Find the least number that must be added to 1500 so as to get a perfect square. Also find the square root of the perfect square.

Q9. A ladder 10m long rests against a vertical wall. If the foot of the ladder is 6m away from the wall and the ladder just reaches the top of the wall, how high is the wall ?

Q10. Using prime factorisation, find the cube root of 5832.

Q11. The length of a rectangle is twice its breadth. If the perimeter is 72 metre, find the length and breadth of the rectangle.

Q12. Solve: $6(x - 4) + 3(x + 7) = 3$

Q13. Is 4 a solution of $5(2 - x) = -10$? Show work to justify your answer.

Q14 Evaluate the square root of 22.09 by division method.

Q15 The product of two rational numbers is 15. If one of the numbers is -10 , find the other.

Multiple Choice Questions :

- The area of a square field is 2500m^2 . Its side is
(i) 25m (ii) 250m (iii) 500m (iv) 50m
- The value of $53^2 - 52^2$ is
(i) 100 (ii) 105 (iii) 1^2 (iv) 51^2
- By what number we should divide 800 to make it a perfect square
(i) 80 (ii) 5 (iii) 2 (iv) 4
- 6^3 is expressed as the sum of consecutive odd numbers as: (i)
 $23+25+27+29+31$ (ii) $31+33+35+37+39+41$
(iii) $3+15+17+19+21+23$ (iv) $21+23+25+27+29$
- The cube of 5022 one's digit is
(i) 8 (ii) 9 (iii) 4 (iv) 6
- A perfect cube number does not end with ----- zeros.
(i) two (ii) three (iii) six (iv) nine
- The largest number which is perfect cube is
(i) 9999 (ii) 9261 (iii) 8000 (iv) 9899
- The additive identity for rational numbers is
(i) 1 (ii) 0 (iii) -1 (iv) None of these
- A rational number between $\frac{1}{2}$ and $\frac{-1}{2}$
(i) $\frac{3}{4}$ (ii) $\frac{-3}{4}$ (iii) 1 (iv) none of these
- $(a+b)+c = a+(b+c)$ is _____ property
(i) closure (ii) associative (iii) additive (iv) none of these
- _____ does not have a reciprocal
(i) 1 (ii) 2 (iii) 0 (iv) -1
- The numbers _____ and _____ are their own reciprocals.
(i) -1 and 1 (ii) 0 and 0 (iii) 1 and 0 (iv) 0 and 1.

13. Which of the following is a Pythagorean triplet?
(i) 16,18,20 (ii) 30,40,50 (iii) 1, 2, 3 (iv) 50,51,52
14. The sum of three consecutive even numbers is 42. The numbers are
(i) 10,12,14 (ii) 12,14,16 (iii) 14,16,18 (iv) 16,18,20
15. If $5(a-3) - 4(a-2) = 0$, then value of a is
(i) 7 (ii) 4 (iii) 5 (iv) -3

PROJECT

Make colorful poster on A3 size sheet:

S. Ramanujan was one of India's great mathematical geniuses. Explore more information about his work and achievements. Also, paste his picture.

1729 is the smallest Hardy – Ramanujan Number.

$$1729 = 1728 + 1 = 12^3 + 1^3$$

$$1729 = 1000 + 729 = 10^3 + 9^3$$

Find at least five such numbers.

ACTIVITY CORNER

(I) Solve this Cross Number Puzzle:

Down

1. Cube of 9.
2. Missing number to make 12, ____, 37, a pythagorean triplet.
4. Smallest number by which 248 be multiplied to make the resultant a perfect cube number.
5. Square of 75.
6. Smallest square number that is divisible by each of 5 and 11
9. Without adding, find the sum of $1 + 3 + 5 + 7 + 9 + 11$.
10. Smallest number which when added to 7669 makes the resultant a perfect square.

Across

2. Square of 19.
3. Look at the numbers given below and find the number which cannot be a perfect square.
81, 100, 144, 25000
7. Square root of 4489
8. Smallest natural number other than 1 which is a perfect square as well as a perfect cube number.
10. Cube root of 357911.
11. Smallest number which when subtracted from 374695 makes the resultant a perfect square number.

1	2			6
3	5			
4	7	10		
			9	
11			8	



(II) Do the activity on square & square root clock as discussed in online class.

(III) Do the activity on square roots and cube roots foldable notes as discussed in online class.

MATHEMATICS LAB MANUAL

- (a) Diagonals of Quadrilaterals (Act. No. 5, pg-20)
To verify the properties of diagonals of Square, Rectangle, Rhombus and Parallelogram
- (b) Interior Angles of a quadrilaterals (Act. No. 2, pg-9)
To verify that the sum of interior angles of a quadrilateral is 360° .



