Remediation

Developed by Rashmi Kathuria. She can be reached at <mathclass_khms@yahoo.co.in>.

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Activity 1: Step by step

Topic	Arithmetic progression (AP)
Nature of task	Remedial
Content coverage	n^{th} term of AP
Learning objectives	To enhance the skill to find the n^{th} term of AP
Task	Worksheet with hints
Duration	Individual need based

Problem: Find the n^{th} term of AP: 2, 4, 6, 8…

Write the first term, $a = 2$

Find a common difference $d = 2$

(d = second term – first term)

Now n^{th} term, $t_n = a + (n-1)\, d$

$= 2 + (n-1)2$

= .....

Now, find the n^{th} term of 1, 3, 5, 7…

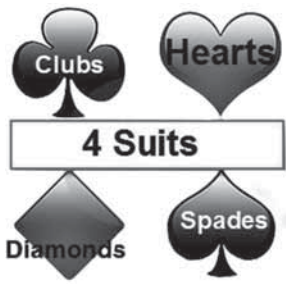
Note: Add more questions as per the need.

Activity 2: Fact sheet

Topic	Probability
Nature of task	Remedial
Content coverage	A deck of cards
Learning objectives	To enhance problem solving skills using a pack of cards
Task	Creating a fact sheet on playing cards
Duration	Individual need based

Fact sheet on a pack of cards

1. There are a total of 52 cards in a pack
2. 2 colours – red and black
3. 26 red cards, 26 black cards
4. 4 suits – spade, diamond, club, heart
5. 13 spade cards (A, 1, 2, 3,...., Jack, Queen, King)
6. 13 diamond cards (A, 1, 2, 3,.... Jack, Queen, King)
7. 13 club cards (A, 1, 2, 3,....Jack, Queen, King)
8. 13 heart cards (A, 1, 2, 3,....Jack, Queen, King)
9. 12 face cards - (4 Jacks, 4 Queens, 4 Kings)
10. Number cards – 40



After studying the pack of cards attempt to answer the following questions:
A card is drawn from a well shuffled deck of cards. Find the probability of drawing

1. a spade card
2. a red card
3. a king
4. a black king
5. neither a king nor a queen
6. a face card
7. a number card
8. a jack of clubs
9. a non red card
10. a 6 or an 8
11. a clubs card or a king
12. a clubs card and a king
13. a queen of red suit
14. a red face card
15. a red number card

Now remove the kings and queens from the deck of cards. A card is drawn at random. Find the probability of drawing the following:

1. a spade card
2. a red card
3. a face card
4. a number card
5. a jack of clubs
6. a non red card
7. a 6 or an 8
8. a clubs card or a king
9. a queen of red suit
10. a red face card

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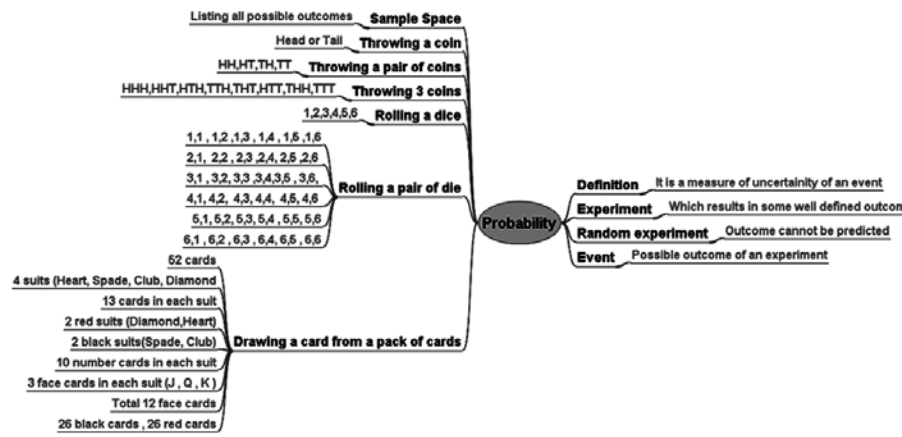
Activity 3: Mind map

Topic	Probability
Nature of task	Remedial
Content coverage	Complete chapter
Learning objectives	To improve a student's problem solving capacity in probability
Task	Using a mind map
Duration	Individual need based

This is a mind map on probability



Answer the following questions:

i. Write the number of total possible outcomes for the following

Experiment	Total possible outcomes
Tossing a coin	
Tossing a pair of coins	
Tossing 3 coins	
Rolling a pair of dice	

ii. A pair of dice are rolled. Find the probability of the following:

a) Getting the sum of 7 .....

b) Getting a sum greater than 7 .....

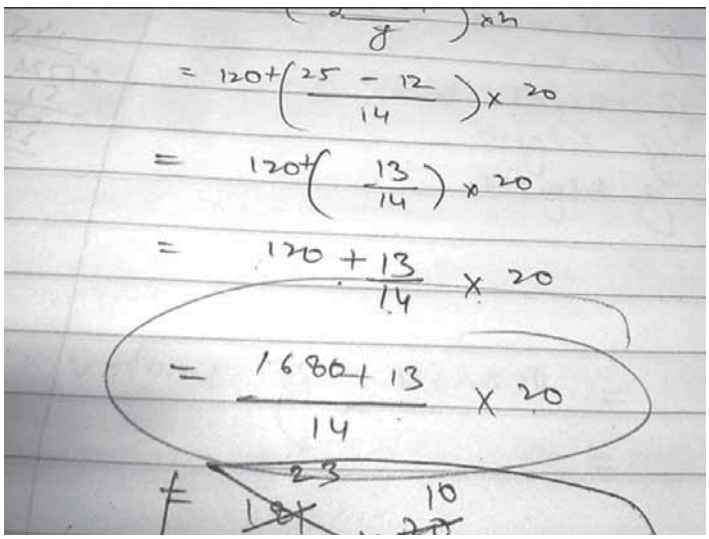
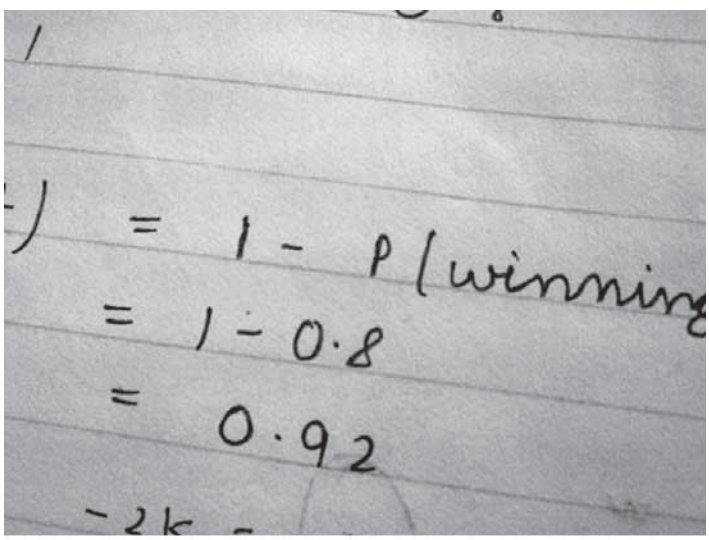
c) Getting a sum less than 7 .....

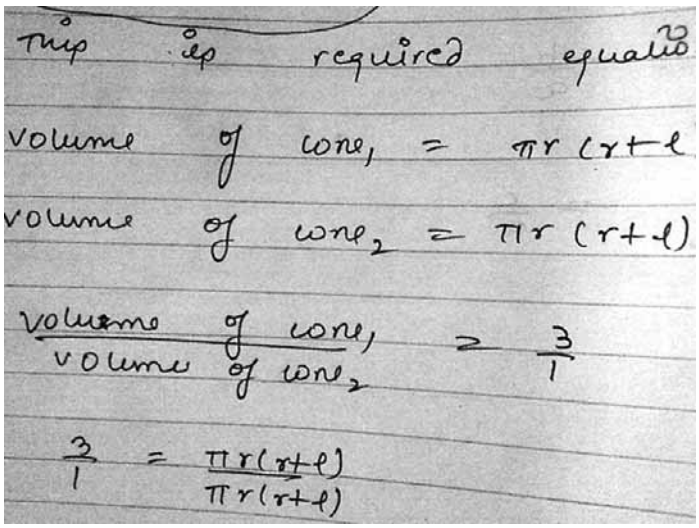
d) Getting an even number on both dice .....

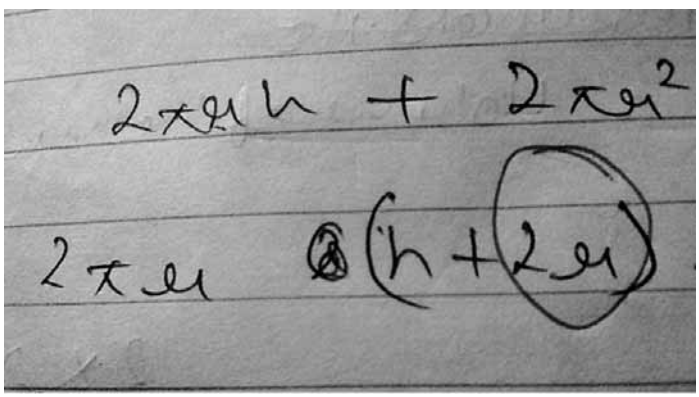
e) Getting the same number on both dice .....

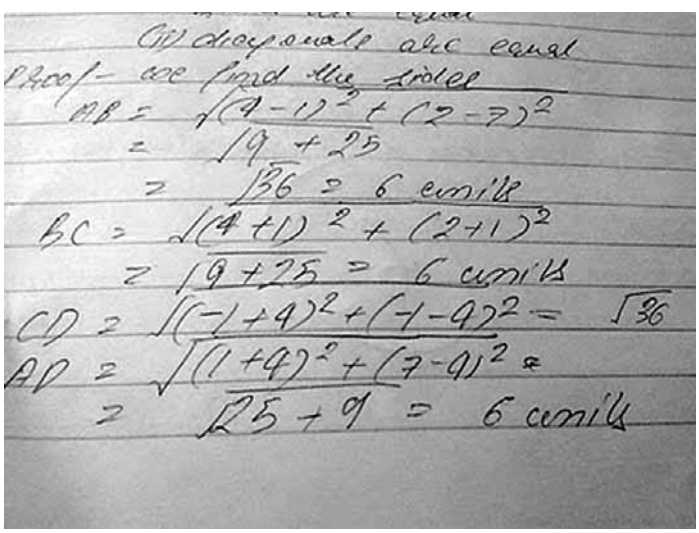
Activity 4: Find the error

In the following solved problems, find the error and correct it in the space provided.

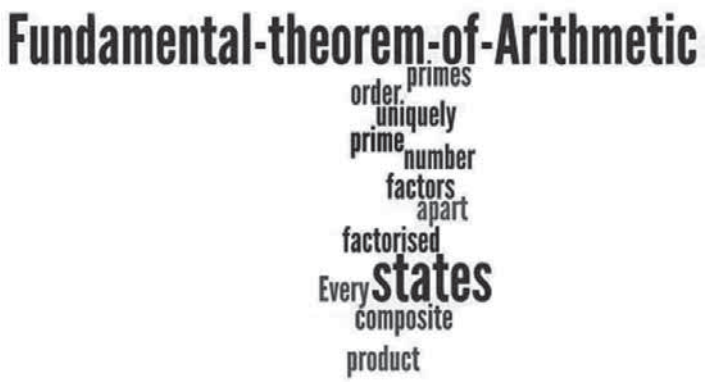

Thus required equation
volume of cone, = πr(r+l
volume of cone, = πr(r+l)
volume of cone, / volume of cone, = 3/1
3/1 = πr(r+l) / πr(r+l)


2πrh + 2πr²
2πr (h + 2r)

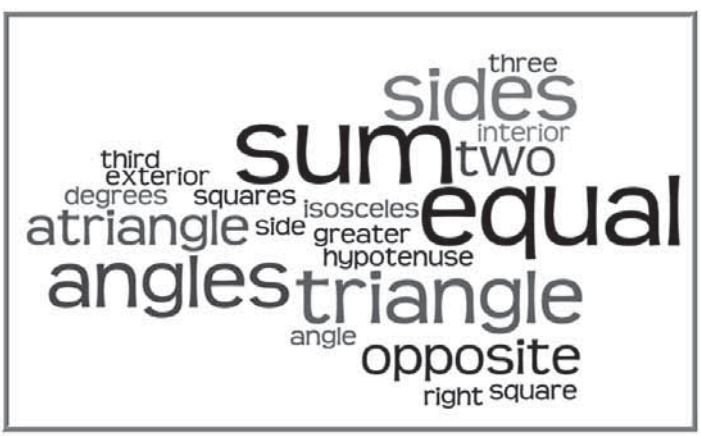

(ii) diagonals are equal
Proof:- we find the sides
AB = √(4-1)² + (2-7)²
= √9 + 25
= √36 = 6 units
BC = √(4+1)² + (2+1)²
= √9+25 = 6 units
CD = √(-1+4)² + (-1-9)² = √36
AD = √(1+4)² + (7-9)²
= √25+9 = 6 units

Activity 5: Word collage

Using the given words, write the statement for the fundamental theorem of arithmetic.



Write important theorems and results on triangle using the given words.



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Activity 6: Practice sheet

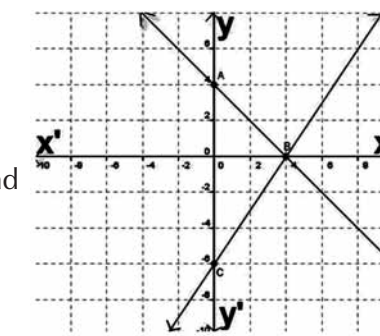
Students often get confused with the concept of types of numbers in grade 9 and 10. Following is an example for recognizing types of numbers.

Put a tick or cross for each category that applies to a given number in each row.

S.No.	Number	Real	Rational	Irrational	Integer	Whole	Natural
1	-6						
2	62						
3	0						
4	$\pi/2$						
5	2.7						
6	2/5						
7	$\sqrt{7}$						
8	$\sqrt{25}$						
9	1						
10	½						
11	-3						
12	$3\pi/4$						

Practice sheet on graph of a pair of linear equations in two variables

Given below is a graph representing a pair of linear equations in two variables.
$x + y = 4$, $3x - 2y = 12$

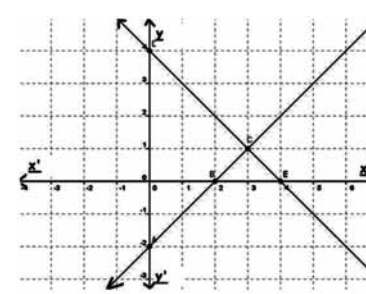


Observe the following carefully...

- The given two lines intersect at (4, 0) which is the solution of the given pair of linear equations in two variables.
- Coordinates of points where lines cut the x and y axis are A (0, 4) and C(0, -6)
- Vertices of triangle formed by the given lines and y-axis are A(0, 4), B(4, 0) and C(0, -6)
- The area of Δ ABC = ½(10 x 4) = 20 square units

Given below is the graph representing a pair of linear equations in two variables
$x - y = 4$, $x - 2y = 4$

Given below is a graph representing pair of linear equations in two variables $x - y = 2$, $x + y = 4$.



1. What are the coordinates of points where two lines meet the x-axis?
2. What are the coordinates of points where two lines meet the y-axis?
3. What is the solution of the given pair of equations? Read from graph.
4. What is the area of triangle formed by the given lines and x-axis?
5. What is the area of triangle formed by the given lines and y-axis?