

Name: \_\_\_\_\_

## Applications of Linear Systems

- 1) Romila went to a stationery shop and purchased 2 pencils and 3 erasers for 9 Dh. Her friend Sonali saw the new variety of pencils and erasers with Romila, and she also bought 4 pencils and 6 erasers of the same kind for 18 Dh. Represent this situation algebraically and graphically.
  
- 2) Fatal tells his daughter, "Seven years ago, I was seven times as old as you were then. Also, three years from now, I shall be three times as old as you will be." Represent this situation algebraically and graphically.
  
- 3) The coach of a cricket team buys 3 bats and 6 balls for 3900 Dh. Later, she buys another bat and 2 more balls of the same kind for 1300 Dh. Represent this situation algebraically and geometrically.
  
- 4) The cost of 2 kg of apples and 1kg of grapes on a day was found to be 160 Dh. After a month, the cost of 4 kg of apples and 2 kg of grapes is 300 Dh. Represent the situation algebraically and geometrically.
  
- 5) Chama went to a 'Sale' to purchase some pants and skirts. When her friends asked her how many of each she had bought, she answered, "The number of skirts is two less than twice the number of pants purchased. Also, the number of skirts is four less than four times the number of pants purchased". Help her friends to find how many pants and skirts Chama bought.
  
- 6) Form the pair of linear equations in the following problems, and find their solutions graphically.
  - 1) 10 students of Class X took part in a Mathematics quiz. If the number of girls is 4 more than the number of boys, find the number of boys and girls who took part in the quiz.
  
  - 2) 5 pencils and 7 pens together cost 50 Dh, whereas 7 pencils and 5 pens together cost 46 Dh. Find the cost of one pencil and that of one pen.