

Linear Patterns Worksheet

- 1) A photographer charges a sitting fee of \$20 plus \$6 for each picture ordered.
 - a) Give the independent and dependent variables.
 - b) Make up a table of values and draw the graph. Is the graph continuous or discrete?
 - c) Give the slope and y-intercept.
 - d) Write an equation for the relationship.
 - e) How much will 11 photos cost?
 - f) If your bill is \$80, how many pictures did you buy?

- 2) An internet provider charges \$5 per month and \$0.50 for each hour of use.
 - a) Give the independent and dependent variables.
 - b) Make up a table of values and draw the graph. Is the graph continuous or discrete?
 - c) Give the slope and y-intercept.
 - d) Write an equation for the relationship.
 - e) If you use the internet for 43 hours, how much will it cost you?
 - f) If your internet bill is \$32.50, how many hours did you use the net for?
 - g) A second provider charges a flat rate of \$35 per month with no extra charges. After how many hours of use will the two providers cost the same?

- 3) Sonya signed a contract with a recording company. She receives \$10,000 cash on signing and \$1 for each song downloaded.
 - a) Give the independent and dependent variables.
 - b) Make up a table of values and draw the graph. Is the graph continuous or discrete?
 - c) Give the slope and y-intercept.
 - d) Write an equation for the relationship.
 - e) If Sonya has 4000 of her songs downloaded, how much will she make?
 - f) If Sonya made \$25,000, how many songs were downloaded?
 - g) A second company will sign Sonya for \$5,000 but give \$2 per song downloaded. After how many songs downloaded will both companies pay Sonya the same amount?

- 4) After 5 km travelled in a cab the cost is \$4. After 25 km travelled the cost of a cab is \$14.
 - a) Express the following situation as two points.
 - b) Find an equation to represent the cost of the cab after "x" km's travelled.
 - c) Graph the situation.