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 and equation for the relationship.
   e) How much will 11 photos cost?
   f) If your bill $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 and 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 and 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 and equation to represent the cost of the cab after “x” km’s travelled.
   c) Graph the situation.