```
function [azimuth backAzimuth] = slope2Az (m)
%  slope2Az.m - calculate the azimuth of a line given the slope.
%   Input: slope
%
%   Output: azimuth from north in degrees, m in radians from +X-axis.
%
% Syntax:  [azimuth] = slope2Az (m)
%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Other m-files required:
%
% MAT-files required: none
%
% See also:
% ************************************************************************
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% Last revision: 27-March-2010
% ************************************************************************
%
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% ************************************************************************
%
% Radians from the X-axis to in decimal degrees
az = atan(1/m)*180/pi;

% Insure 0 < Azimuth < 360
if az > 0 && az < 360
    azOut = az;
elseif az < 0
    azOut = az + 360;
elseif az > 360;
    azOut = az - 360;
end
% end if

% Back azimuth
azimuth = azOut;

if azimuth > 180
     backAzimuth   = azimuth - 180;
else
     backAzimuth   = azimuth + 180;
end

end %function

```