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```
function [totTime, adminDose] = PS10_infusion_hkolagan(patW, medDose)

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% ENGR 132
% Program Description
%   Calculates how long an infusion will last given a patient's weight
 and
%   medication dosage.
%
% Function Call
%  [totTime, adminDose] = PS10_infusion_hkolagan(patW, medDose)
%
% Input Arguments
%   1. patW       % Patient's weight
%   2. medDose    % Medication Dose
%
% Output Arguments
%   1. totTime    % Total time for infusion
%   2. adminDose  % Total administered dose
%
% Assigment Information
%   Assignment:       PS 10, Problem 3
%   Author:             Harith Kolaganti, hkolagan@purdue.edu
%   Team ID:            005-12
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

INITIALIZATION

```
y = 0;
numberRateInc = round(0.05 * patW) + 1;
infRate = 75;
adminDose = 75;
```

```
totTime = 1;

% Input Validity Check
if (patW > 175 || patW < 40)
    fprintf('Weight is out of boundaries\n');
    y = 1;
end

if(medDose > 100 || medDose < 25)
    fprintf('Dosage is out of boundaries\n');
    y = 1;
end
```

CALCULATIONS

```
if y ~= 1

    % First Phase of Infusion
    for totTime = 2:numberRateInc
        infRate = infRate + round(0.5 * infRate);
        adminDose = adminDose + infRate;
    end

    % Second Phase of Infusion
    while(adminDose <= (patW * medDose))
        infRate = infRate + round(0.1 * infRate);
        adminDose = adminDose + infRate;
        totTime = totTime + 1;
    end
```

FORMATTED TEXT DISPLAYS

```
    fprintf('Administered Dose = %d mg\n', adminDose);
    fprintf('Total Time for Infusion = %d minutes\n', totTime);
```

```
Administered Dose = 1543 mg
Total Time for Infusion = 7 minutes

end


ans =

     7
```

COMMAND WINDOW OUTPUTS

PS10_infusion_hkolagan(60, 25) Administered Dose = 1543 mg Total Time for Infusion = 7 minutes

ACADEMIC INTEGRITY STATEMENT

I/We have not used source code obtained from any other unauthorized source, either modified or unmodified. Neither have I/we provided access to my/our code to another. The project I/we am/are submitting is my/our own original work.

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