$\label{lem:model} mdblueboxroundcorner=10pt, linewidth=1pt, skipabove=12pt, innerbottom-margin=9pt, skipbelow=2pt, linecolor=blue, nobreak=true, backgroundcolor=TealBlue!5$

mdredboxlinewidth=0.5pt, skipabove=12pt, frametitleaboveskip=5pt, frametitlebelowskip=0pt, skipbelow=2pt, frametitlefont=, innertopmargin=4pt, innerbottommargin=8pt, nobreak=true, backgroundcolor=Salmon!5, linecolor=RawSienna

 $\label{linear} $$mdgreenboxskipabove=8pt, skipbelow=0pt, linewidth=2pt, rightline=false, leftline=true, topline=false, bottomline=false, linecolor=ForestGreen, background-color=ForestGreen!5$

 $\label{line} mdblackboxskipabove=8pt, linewidth=3pt, rightline=false, leftline=true, topline=false, bottomline=false, linecolor=black, backgroundcolor=RedViolet!5!gray!5$

Trudeau - Introduction to Graph Theory

Kia Ghods

2024

Contents

1 Graphs 4

1 Graphs

Basic Definitions

Definition 1.1. A **graph** G is an object consisting of two sets called its *vertex set* and its *edge set*. The vertex set is a finite nonempty set. The edge set may be empty, but otherwise its elements are two-element subsets of the vertex set.