A Word from

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marker extraordinaire

Topics in this section

Illustrations in general

Independent and dependent variables

The conventions of types of illustrations

Tables

Simplify tables as much as possible by these means:
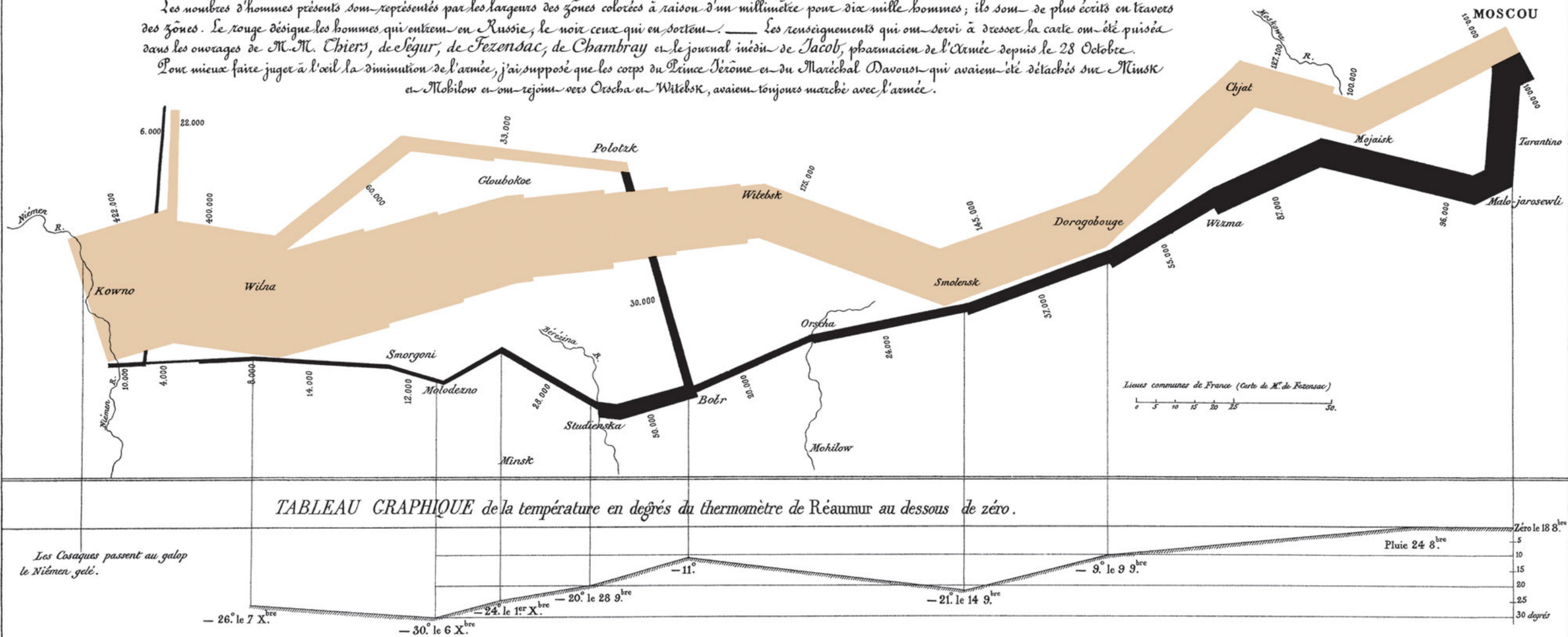
1. limit the data to the reader's real needs

Case in point…

Tables

Simplify tables as much as possible by these means:

1. limit the data to the reader's real needs

2. create as few columns as possible

Case in point…

|	Alien	An Education	Blue Velvet	The Bourne Identity	Bridesmaids	Casablanca	Donnie Brasco	Do the Right Thing	Groundhog Day	How to Train Your Dragon	In a Lonely Place	Iron Man	Raising Arizona	Sideways	Silence of the Lambs	Star Wars	Sunset Boulevard	The Shining	The Fighter	Blazing Saddles	The Babadook	The Fugitive	Rushmore
Is the one sentence description uniquely appealing?	The crewmembers of a space freighter are hunted down and gutted one by one by an alien bio-	A clever-but-bored schoolgirl in pre-Beatles London puts her Oxford dreams on hold when his	A voyeuristic college student finds a severed ear in a field, leading him to discover the dark side of	A spy with no memories must determine who he was and who he wants to be now, while his	A broke and broken-down bridesmaid gets into an epic feud with a wealthy rival who wants to steal the	In an exotic city filled with intrigue, an amoral American nightclub owner must decide	Yes, a married FBI agent goes so deep undercover in the mob that he almost becomes a made man	Not especially : "A conflicted black pizza delivery man working for the only white business on his block must	A selfish weather man is mysteriously cursed to relive the same Groundhog Day over and	An underestimated Viking prince captures and bonds with a dragon, so they try to bring peace to	An angry screenwriter is accused of murder, then falls in love with the beautiful woman who	A humble arms dealer becomes a high-tech armored superhero to confront the enemies	A desperate childless couple steal a baby from a family with quintuplets, but two escaped	No. The logline sounds very unappealing. (Two miserable middle-aged men	An ambitious FBI rookie must work with a devious imprisoned serial killer to rescue a Senator's	A farmboy on a distant planet becomes the hero of a galactic rebellion.	A dead screenwriter tells us how he became the kept boy of a psychotic ex-silent-screen-goddess and	A family agrees to take care of a snowbound hotel, but when the father is driven mad by	The inspiring true story of a boxer who breaks free of his exploitative family to become a	A sarcastic black track layer in 1874 is set up to fail as the new sheriff of a white western town, but rises	A mother and son are stalked by a creature that emerges from a creepy picture book.	A falsely-convicted fugitive hunts for his wife's killer.	Some precoc high s falls in with a to his best f
Is this a new twist on a classic type of story?	Yes, the haunted house movie done on a space freighter.	Not much of a twist. Just a very classic coming of age cautionary tale, but exceptionally well done	Yes, an amateur detective story where the amateur is driven by impure motives	Yes, a spy story but the spy is trying to solve the mystery of who he is and what his mission is	A raunchy wedding-party comedy focused on the bridesmaids for once.	Yes, the forbidden love romance with Nazis thrown in.	Yes. Reverses the usual undercover story.	Sort of: The day-in-the-life-of-a-city genre had died out fifty years eariler, but this revived it with a new	The "guy has to grow up and move on to the next stage of his life" romantic comedy gets a supernatural movie the	No, that's pretty damn original. It has elements of the war movie, the gladiator movie, and is	It's a "falsely accused" movie in which the accused doesn't care to clear his name, and is	A superhero origin but he's a cocky middle-aged asshole instead of a young do-gooder.	A zanier and sweeter rich-man's-baby-gets-taken story.	No.	The serial killer hunt, but with another serial killer helping	A fairy tale in outer space.	Not really, it's pretty original: part comedy, party noir, part satire.	Yes, a non-gothic haunted house movie.	Yes, a mix of boxing movie, crack movie, and family drama. But funny.	Very much so: the appointed sheriff in a overrun western town was a classic subgenre, but this is a very	The haunted hause / demonic possession movie.	It's not much of a twist, just an exceptionally good version of a very classic thriller template	Yes, th triang
Does the concept contain an intriguing ironic contradiction?	Sort of: answer a distress signal, almost all of them get killed as a result.	She wants an education, but which kind she'll get. The glamorous sophisticates are lowly	Yes, an idealistic amateur detective discovers he's just as creepy as those he investigates	Yes, A spy with a conscience becomes the latest target of his own agency.	The bridesmaids are not maidenly. An attempt to plan a happy celebration becomes a	The least patriotic American has to save the Allied cause.	Yes, an undercover FBI agent finds his pitiful targets more sympathetic than his bosses	Yes, being promoted over your hapless boss, but your undercover with the mob.	A comedy about a race riot.	A dragon killer in training succeeds by befriending a dragon.	Yes, a writer of crime stories is caught up in one.	Many: He thinks his products are making everyone free, but they're in the hands of his evil	Hi tries to goes straight by kidnapping a baby.	Not really for Miles, but yes for Jack, a man looking for love on the eve of his wedding.	Very identifiable, but not really bigger, except for the two "Holy Crap" moments.	We've all felt that we must accept injustice to get ahead at work.	The only way to catch one to work with another.	The kid who didn't get to go join the rebellion becomes the hero of the rebellion.	Yes, The nation's most glamorous people are deluded lowlifes, etc.	Somewhat: the family becomes a source of danger, when the world goes crazy only the crazy kid	Very much so: A black must save a town of rasists in order to save himself (and empower his people).	A son must fear his mother. A hunt for external monsters leads to the discover of an	A wealthy doctor learns what it's like to be a dehumanized convict, and a marshall	Some young who a
Is this a story anyone can identify with, projected onto a bigger canvas, with higher stakes?	Yes, it's the ultimate unsafe workplace.	Wanting to get away from parents with dangerous older boy, but in this case much older, and a career	Yes, a coming of age story in which the adult world our young man discovers is insanely dark and evil	It's a metaphor for anyone who is disgusted by what he's become	The stakes are only slightly higher than real life, but a rivalry over a friendship results in plane being	Yes, we've all pined for an ex, and wondered what we would actually do if given a second	Yes, being promoted over your hapless boss, but your undercover with the mob.	Yes, everyday city tensions culminate in a death and a riot.	Very much so.	Training a pet, but with two civilizations on the line.	Yes.	A universal tale of overcoming hypocrisy and taking responsibility for one's actions, but	The urge to have a family at all costs, combined with the fear of family commitment, get pushed to	Very identifiable, but not really bigger, except for the two "Holy Crap" moments.	We've all felt that we must accept injustice to get ahead at work.	Very much so.	Yes.	Yes, fear of isolation and being trapped in a marriage, set in the most isolated place in America trapped with a	Very much so. We all have to break free of our families in order to succeed.	Very much so. We've all had to prove ourselves, but not with these stakes.	Yes, every parent has resented their children, and vice versa. Everyone has repressed emotions until	The most universal emotion is to feel misunderstood / misjudged.	We've unreq love.
Is the concept simple enough to spend more time on character than plot?	There's not a lot of plot, but not a lot of character either. Both are sacrificed in favor of tone	Very much so. It's 90% character.	Yes and no. There's lots of plot, but it mostly takes place off screen and remains unexplained	Yes, there are no plot twists in the second half, just character twists.	We all know the steps leading up to a wedding, so there's almost no time spent on setting up plot. it's all	Yes, the plot is very simple.	Yes. In the deleted scenes, needless complications, like Donnie getting audited, are	Very much so. There's almost no plot.	Plot and character are inextricable here.	Yes.	Yes, the plot all happens offscreen, all we see are the emotional reactions to it.	There's actually relatively little plot, especially for a super-hero movie.	Not really. It's pretty complicated. The first ten minutes is all narrated montage.	Very much so.	We understand the problems and goals quickly.	Yes and no. There's a lot of plot, so much so that we need an exposition pre-roll, but	Yes. There's very little plot.	Yes. As opposed to the book, Jack's internal problems drive the movie, not the external	Yes.	Pretty much. The 90-minute movie takes a full 30 minutes to construct its outlandish premise, but it's time well	Yes.	Yes.	Yes.
Is there one character that the audience will choose to be their "hero"?	Not until very late, when we finally settle on Ripley once she takes over.	Jenny	Yes, Jeffrey.	Yes, Jason, although our loyalty to him is tested at times.	Annie.	Yes, Rick.	Yes, Donnie.	Mookie, for lack of a better one, but he's relatively passive and we're never sure if he's a hero or an anti-	Phil.	Hiccup.	Yes, Dix.	Tony.	Hi.	Miles.	Clarice	Luke, though we find Han more appealing.	Yes, Joe	No. This movie has one hero at a time but it's a tag-team effort: first Jack, then Danny, then Jack, then	Mickey.	Bart	Yes and no. Our identification shifts, but one could argue that Amelia remains the "hero"	Kimble.	Max.
Is the story about the hero's	Yes.	Yes.	Yes. Two hours of deleted scenes attest	Yes.	Yes, though this one problem	Not strictly. It's not very linear. The	Yes, we barely even see where he lives	Yes and no. We think for the most	We get started quickly, then	Yes, there are lots of montages that	Yes. We zip through a lot quickly, then	Yes. We zip through a lot of time	For instance, when it starts to cut away to	It breezes through seven days of story	We zip through a lot of time have	Yes.	Yes.	Yes, it follows the progress of the problem	Yes. It begins when he realizes that	Very much so. In fact, Bart disappears off	Yes. The first half-hour is a beautiful	Very much so. The first ten minutes do an	Yes. The month

Tables

Simplify tables as much as possible by these means:

1. limit the data to the reader's real needs

2. create as few columns as possible

3. put units of measurement in headings, not each row

Case in point...

Table 1: Temperature of cooling coffee

Time	Temperature of coffee
0 minutes	80 degrees C
0.5 minutes	79 degrees C
1 minute	78 degrees C
1.5 minutes	77 degrees C

Case in point…

Table 1: Temperature of cooling coffee

Time (minutes)	Temperature of coffee (degrees C)
0:00	80
0:30	79
1:00	78
1:30	77

Tables

Simplify tables as much as possible by these means:

      1. limit the data to the reader's real needs

      2. create as few columns as possible

      3. put units of measurement in headings, not each row

Put table number and title above table, as per convention.

Tables (placement)

Make the table and main text "parallel" whenever possible.
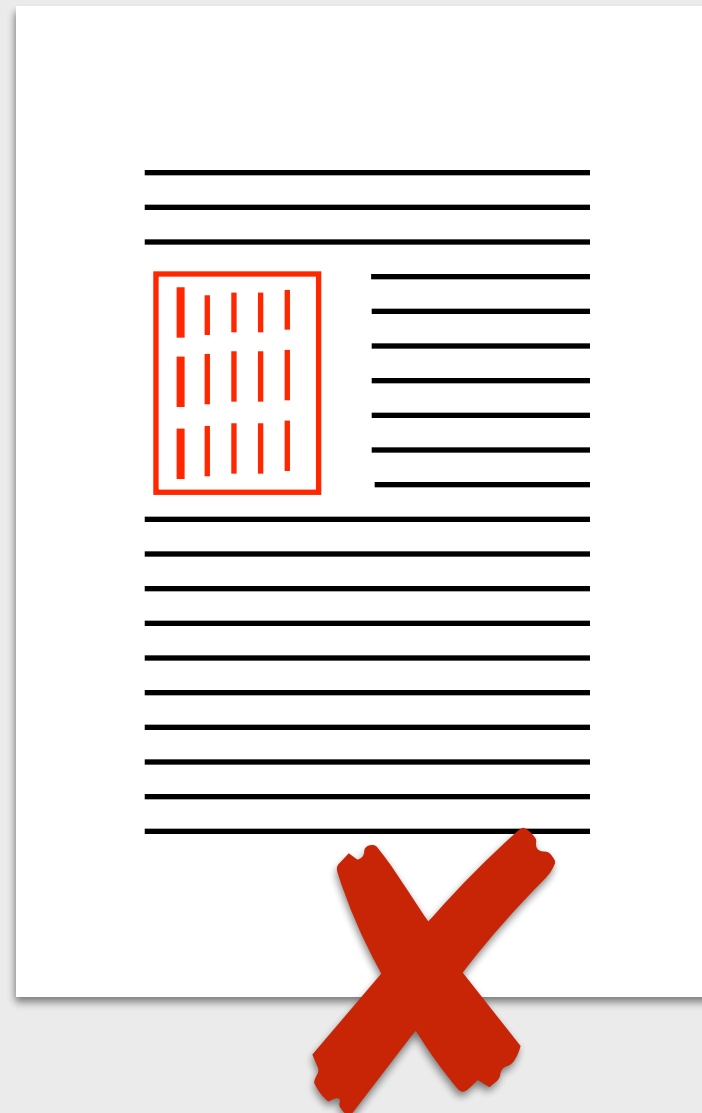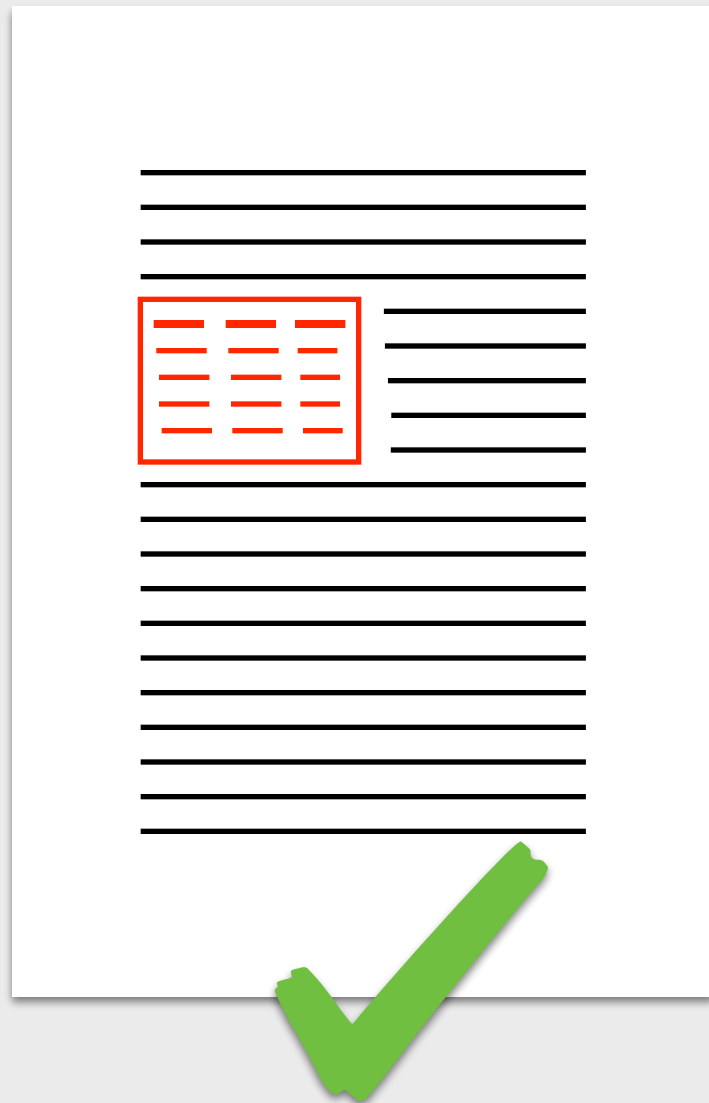
Tables (placement)
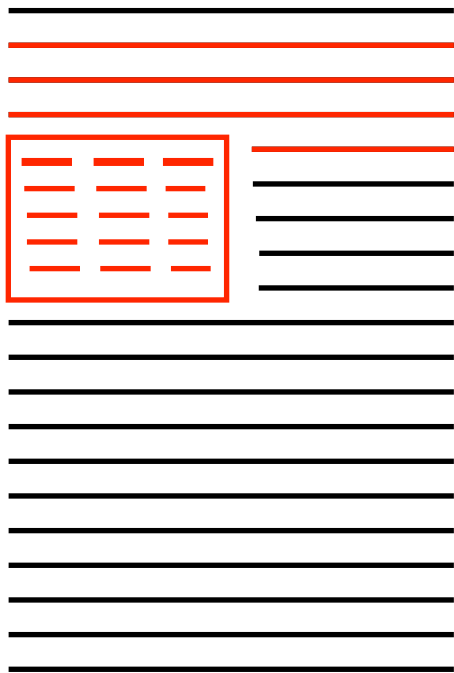
If a table is short (less than ½ a page), keep it as close as possible to the relevant main text — definitely on the same page.

Tables (placement)
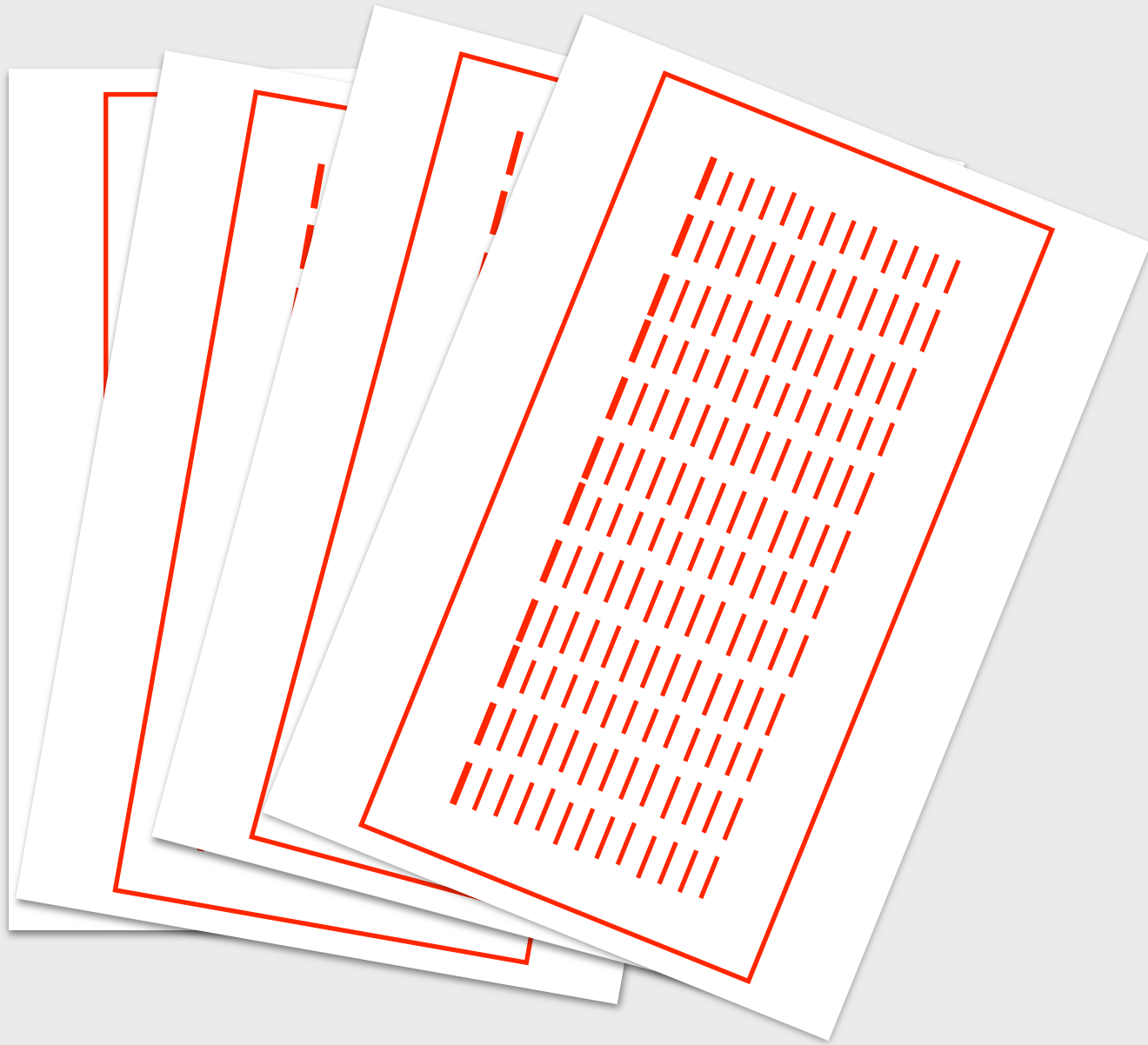
If a table is a full page or more, summarize it in the main text and move the table into an appendix.

Tables (placement)

If a large table must occupy a full page in landscape, place the top of the chart along the bound edge.
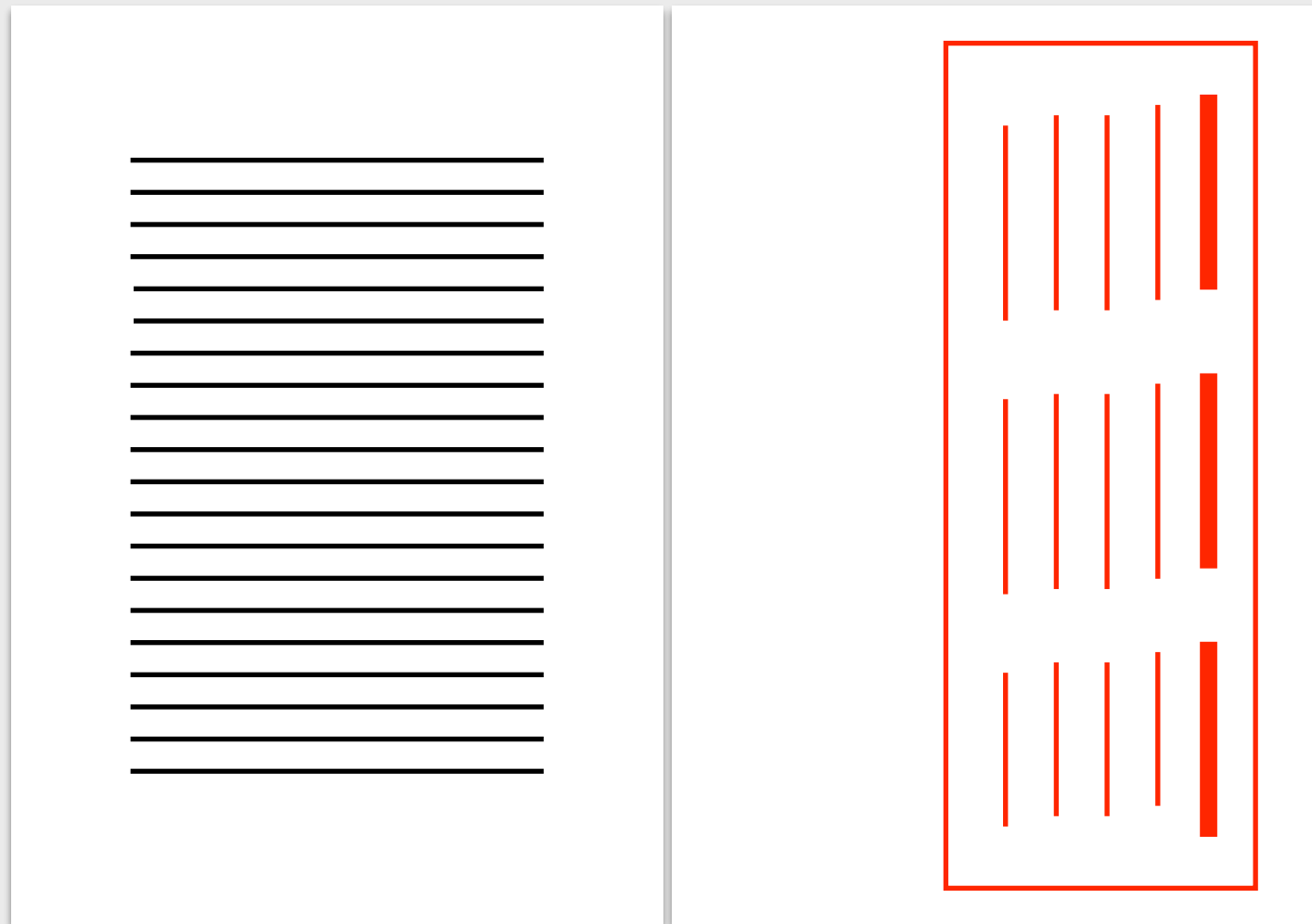
Simple tables

Table 12.2 A Prose Table

A Cross-Section of Canadian Biotechnology Companies

Company	Location	Overview
QLT PhotoTherapeutics	Vancouver	Spinoff from UBC; develops drugs that enhance photodynamic therapy. Employs about 400 people.
Biomira	Edmonton	Spinoff from University of Alberta research in immunology. Develops cancer vaccines. Employs about 120 people.
Mainstream Water Solutions	Regina	Uses ozone and bio-filtration technologies to treat water. Teams with ALS Laboratories to test ground or surface water. Employs 13 people.
Generex Biotechnology	Toronto	Researches, develops, and commercializes drug-delivery systems and technologies. Generex Oral-lyn™, its flagship product, is an oral insulin that's in worldwide clinical trials. Generex employs 22 people.

Source: Phone interviews, August 27, 2009.

Lannon, Gurak, & Klepp, *Technical Communication*, 6th Canadian ed. (Pearson: Toronto, 2012), 194.

Complex tables

Table 12.3 A Complex Table

Single Release Threshold of 100 Tonnes for Any of the Criteria Air Contaminant Releases

2006 Total Emissions Reported to the NPRI for Each Province

Region	Total Facilities	TPM (Tonnes)	PM$_{10}$ (Tonnes)	PM$_{2.5}$ (Tonnes)	SOx (Tonnes)	NOx (Tonnes)	VOC (Tonnes)	CO (Tonnes)	NH$_3$ (Tonnes)
National	7,648	198,943	112,199	63,098	1,968,841	828,258	303,934	1,089,918	21,624
Alberta	3,558	28,515	19,298	11,397	600,851	442,616	98,967	252,959	10,512
British Columbia	784	46,922	22,324	11,006	65,068	69,937	35,077	232,909	1,645
Manitoba	117	7,550	4,442	2,039	388,637	5,094	11,624	5,998	1,257
New Brunswick	79	5,433	3,761	2,204	52,082	22,302	5,396	27,533	222
Newfoundland and Labrador	47	9,081	5,892	2,953	23,589	16,176	4,831	12,337	4
Nova Scotia	98	4,818	2,854	1,447	117,720	33,959	4,847	5,308	46
Northwest Territories	30	217	297	274	384	6,754	634	841	-
Nunavut	29	102	229	229	112	3,317	144	672	-
Ontario	1,742	41,319	28,995	16,945	431,544	113,561	100,222	157,150	6,243
Prince Edward Island	10	224	160	68	1,026	361	231	58	8
Quebec	586	35,817	17,799	11,451	166,747	51,573	31,675	360,025	850
Saskatchewan	567	18,944	6,146	3,084	120,103	62,497	10,288	34,104	836
Yukon	1	-	1	1	978	112	-		

Source: *Environment Canada's National Pollutant Release Inventory* online at http://www.ec.gc.ca/inrpnpri/default.asp?lang=En&n=8BBC10DC-1.

Lannon, Gurak, & Klepp, *Technical Communication*, 6th Canadian ed. (Pearson: Toronto, 2012), 195.

Line graphs

Line graphs compare two variables against each other.

(Always put the independent variable on the x-axis!)

The independent variable is often time, if an ongoing set of measurements occurs during an experiment.
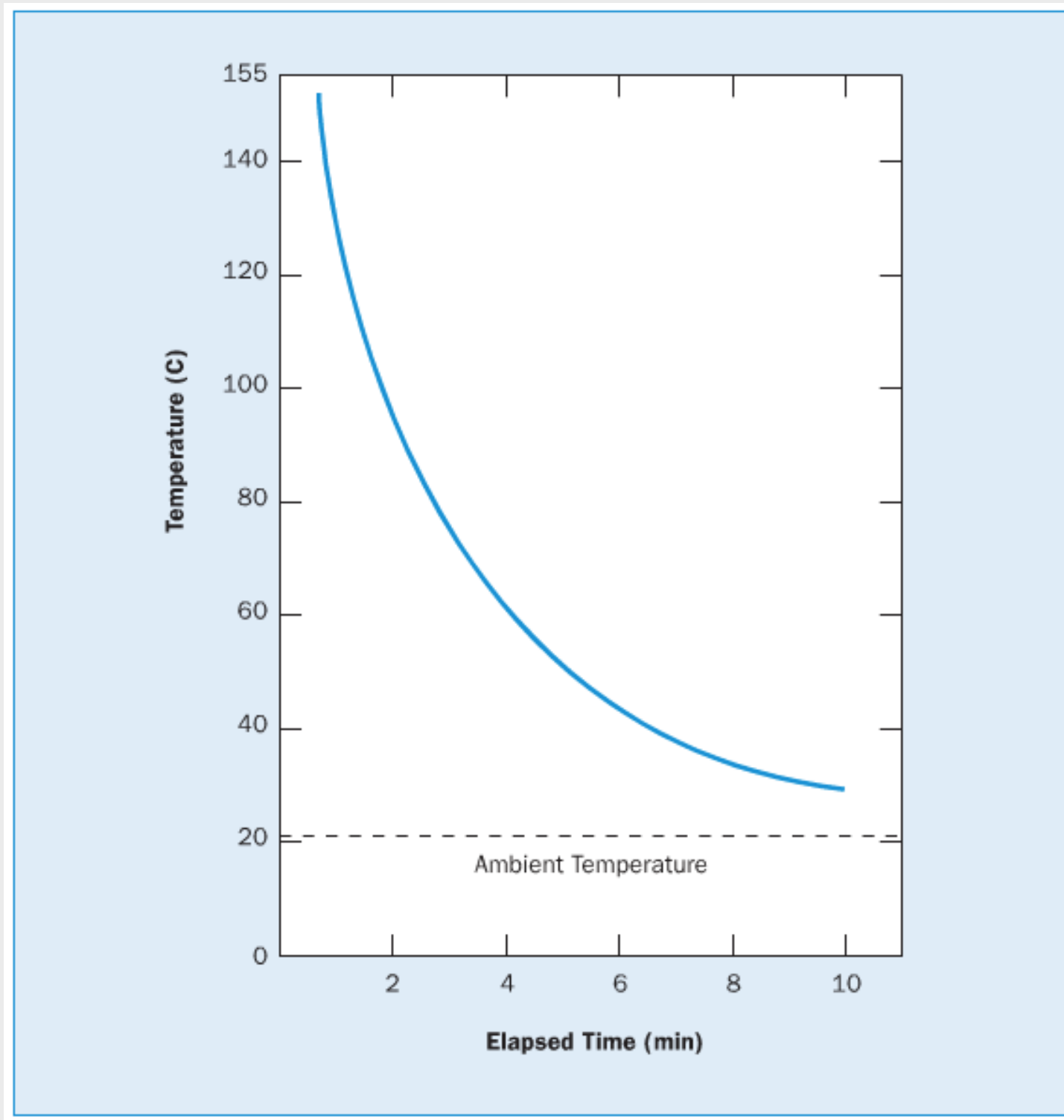
Line graphs

There is a table at the heart of every line graph.

Time Elapsed (min:sec)	Temperature (C)	Time Elapsed (min:sec)	Temperature (C)
0:30	152.9	5:30	43.9
1:00	123.4	6:00	41.1
1:30	106.7	6:30	38.9
2:00	91.2	7:00	37.2
2:30	77.8	7:30	35.6
3:00	69.5	8:00	34.5
3:30	61.7	8:30	33.4
4:00	55.6	9:00	32.8
4:30	51.5	9:30	31.7
5:00	47.3	10:00	31.1

Ambient temperature 22.8°C   Oven temperature 180°C

Line graphs

There is a table at the heart of every line graph.

Line graphs

The table may involve multiple sequences of data...

Time Elapsed (minutes)	Temperature (C)		
	Cover Plate	Panel Board	Manometer Case
0:30	154.5	145.1	152.9
1	136.7	97.3	123.4
2	112.3	67.8	91.2
3	95.1	51.7	69.5
4	82.3	42.3	55.6
5	71.7	36.1	47.3
6	63.9	32.2	41.1
7	55.6	29.5	37.2
8	49.5	27.2	34.5
9	43.4	26.1	32.8
10	38.9	25.0	31.1

Line graphs

…which is perfectly fine, so long as everything is clearly labelled.
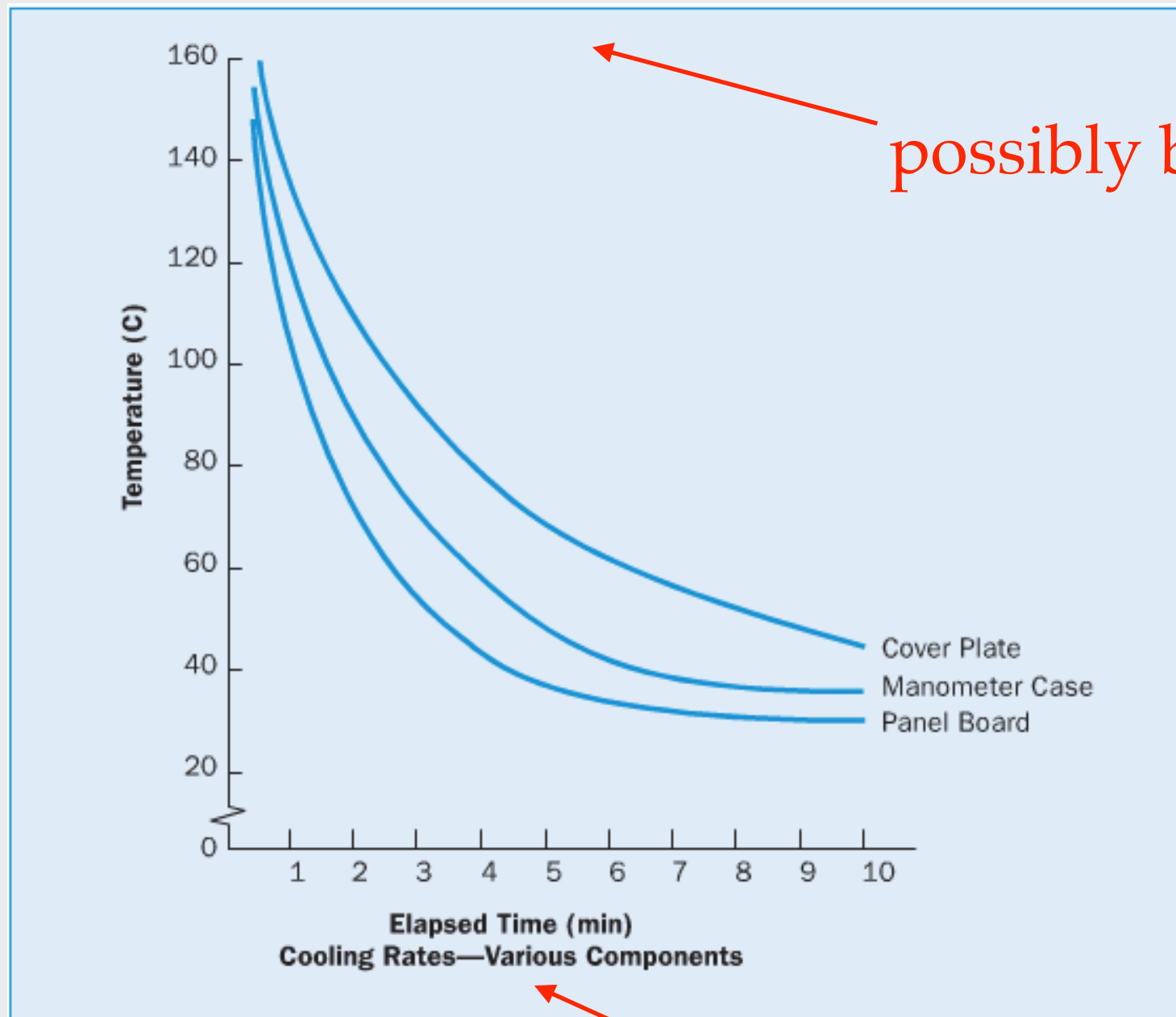
possibly better here

awkward location for title?

Bar charts

Bar charts compare variables in multiple categories.

Vertical and horizontal orientations are used — usually horizontal if time is the independent variable.

Separate bars for clarity.

Bar charts
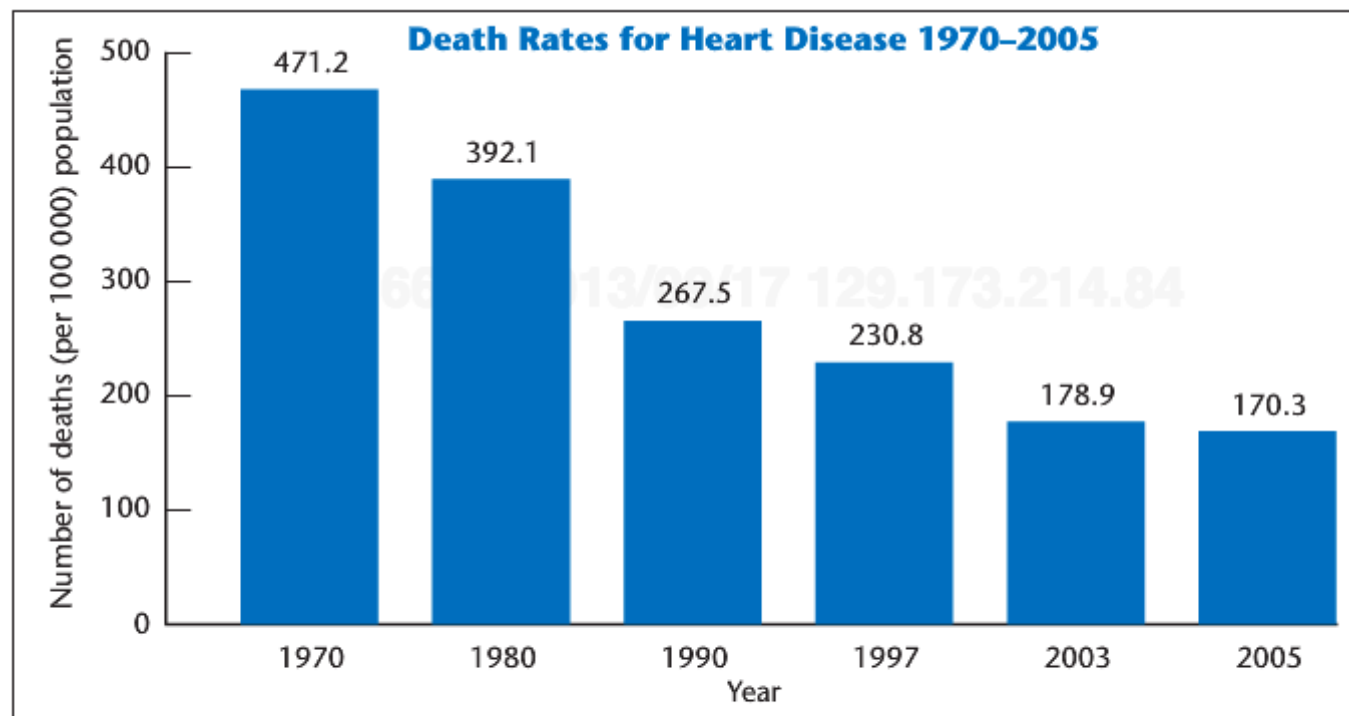
Figure 12.2 A Simple Bar Graph

Sources: Based on Statistics Canada, Catalogue no. 82-221-XDE; *The Canada e-Book*, Catalogue no. 11-404-XIE; and Catalogue no. 84F0209.

Bar charts (complex)

Ontario, Employment by Industry, 2006–2007
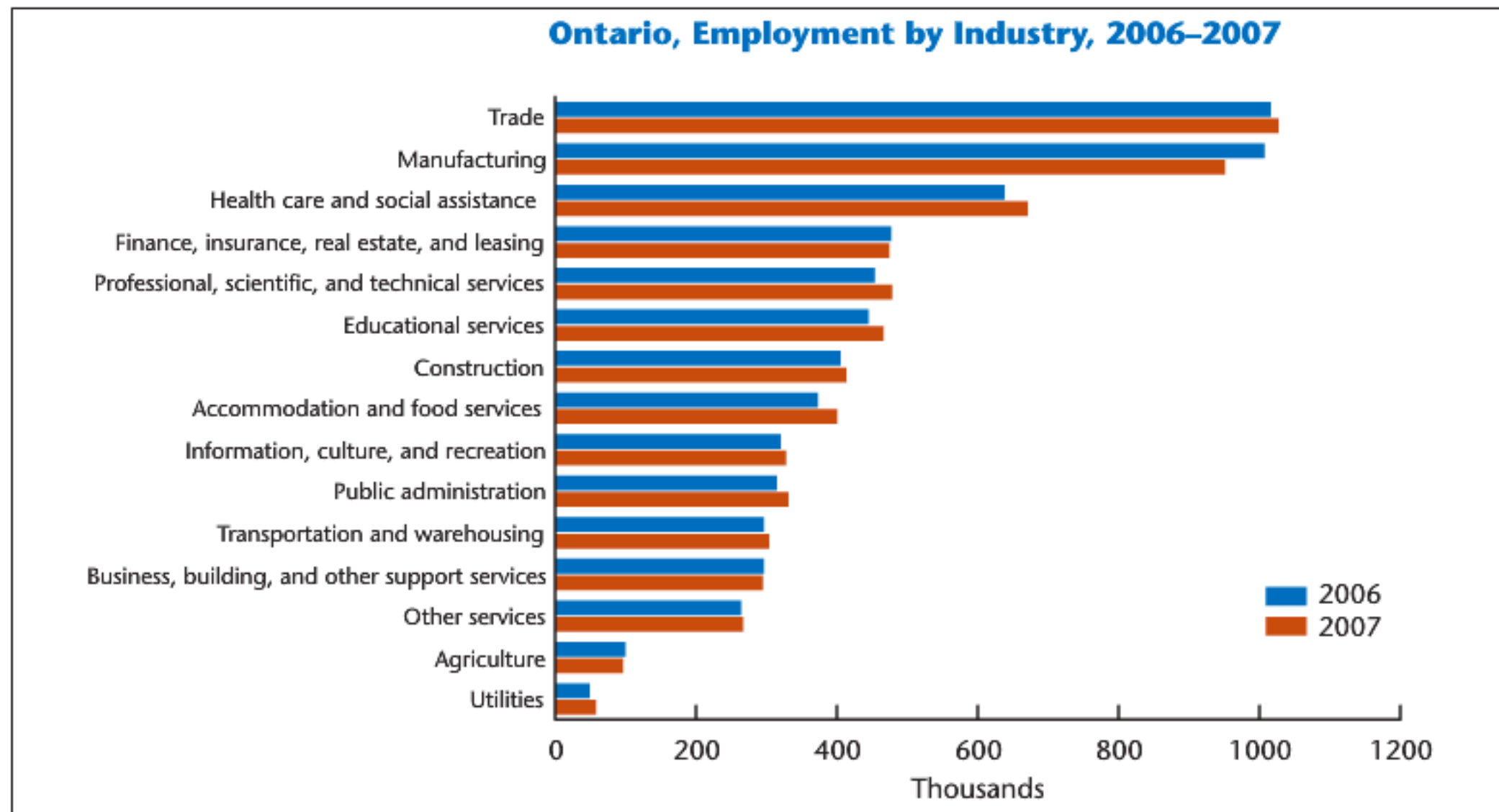
Figure 12.4 A Horizontal Bar Graph

Source: Adapted from Statistics Canada, *Labour Force Survey* reported by Ontario Ministry of Finance. At http://www.fin.gov.on.ca/english/budget/fallstatement/2008/08fs-ecotables.html.

Lannon, Gurak, & Klepp, *Technical Communication*, 6th Canadian ed. (Pearson: Toronto, 2012), 199.

Bar charts (histograms)

features of line graphs & bar charts combined

two variables
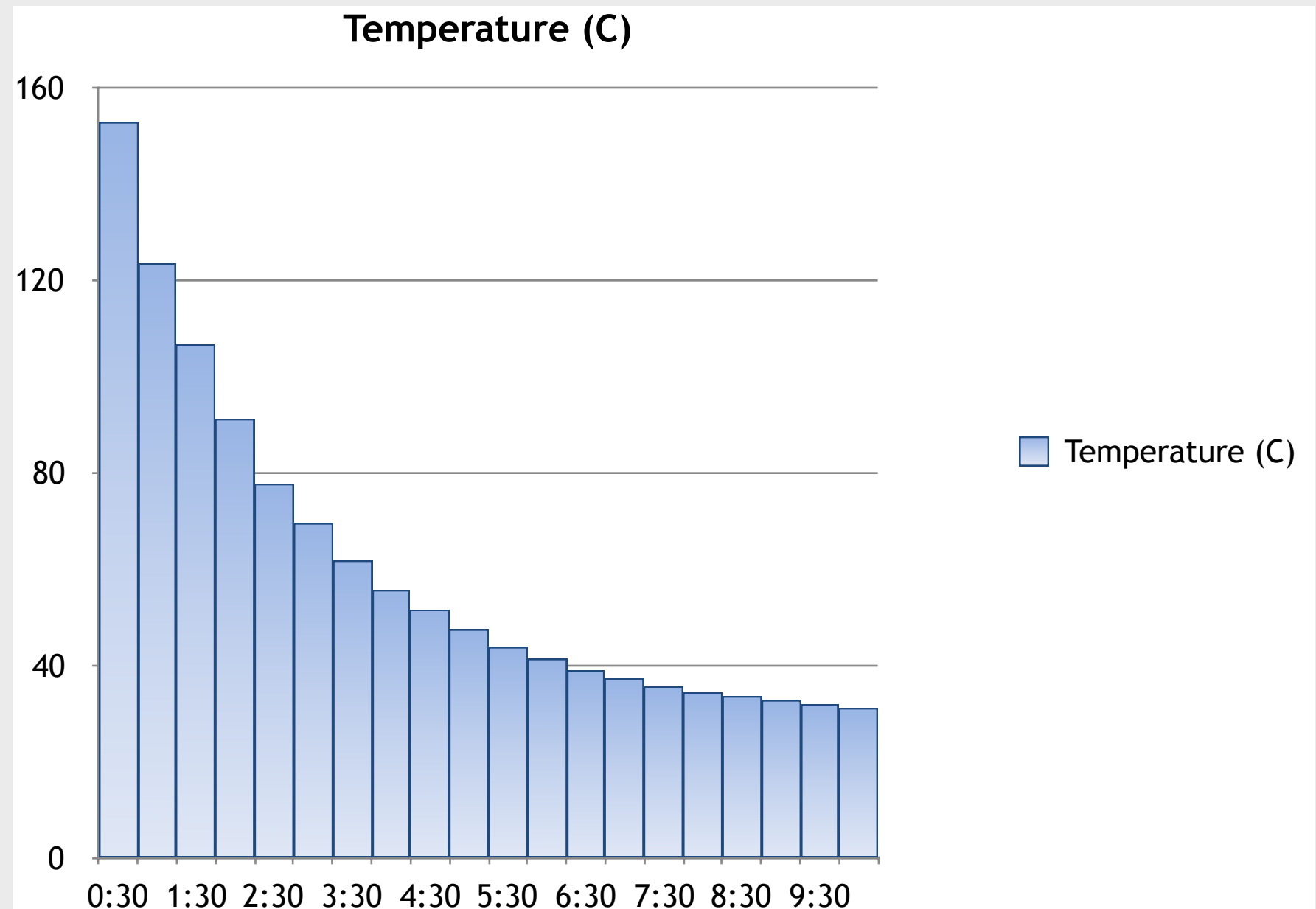
Pictograms

Bar charts using pictures
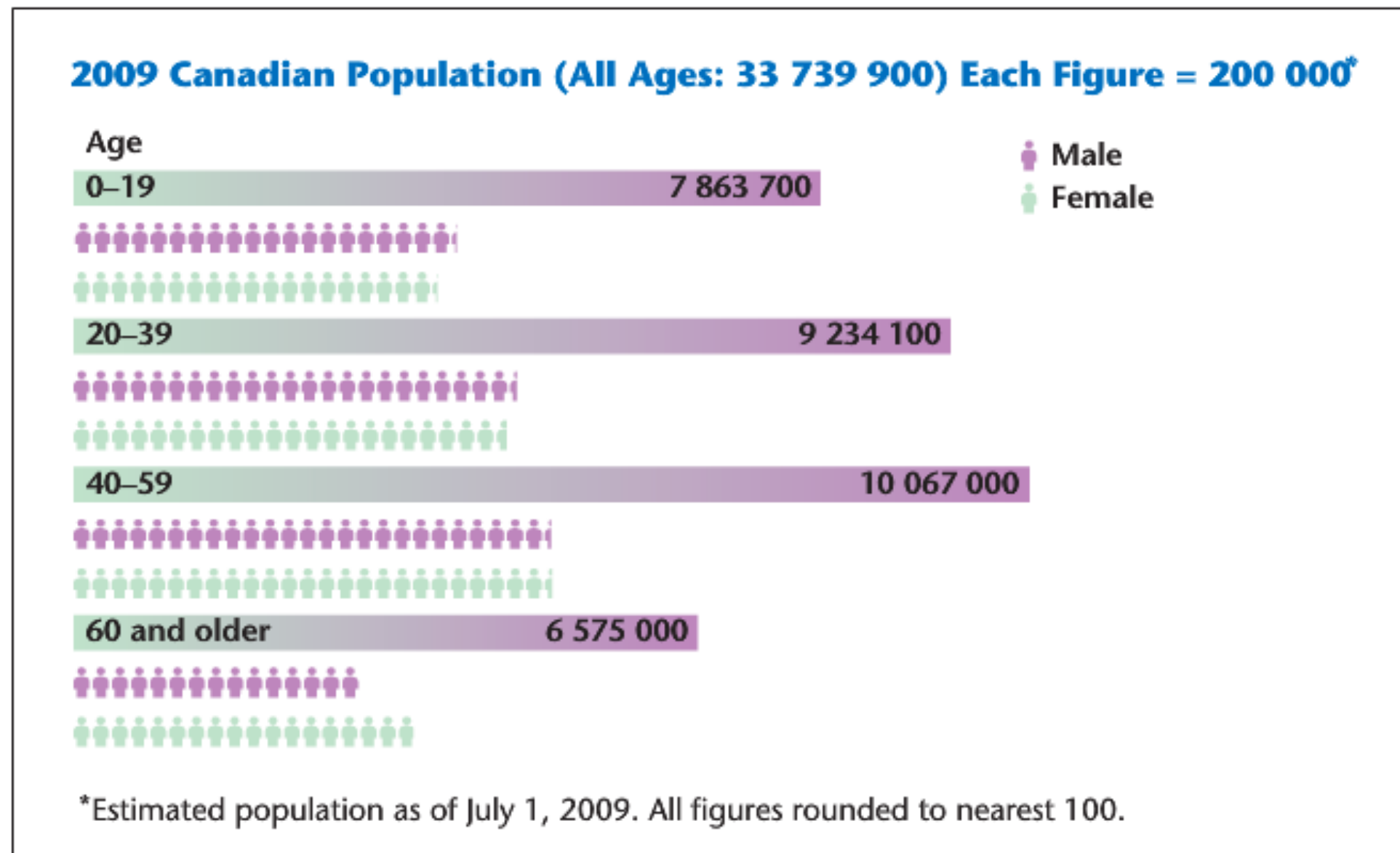
Figure 12.17 A Pictogram

Source: Based on data from Statistics Canada. *Population by Sex and Age Group*. CANSIM, table 051-0001. Modified 30 Nov. 2009. At http://www40.statcan.ca/l01/cst01/demo10a-eng.htm.

Lannon, Gurak, & Klepp, *Technical Communication*, 6th Canadian ed. (Pearson: Toronto, 2012), 207.

Pictograms

can be misleading if misused…

Figure 2. Purchasing power of the Canadian dollar, 1980 to 2000

1980 = $1.00

1985 = $0.70

1990 = $0.56

1995 = $0.50

2000 = $0.46

Pie charts

circular charts divided into pieces

used to show parts of a whole

easily understood when used well,
but easily misused!

Pie charts

College Expenses

Other · Books and supplies · Fees · Tuition · Room and board
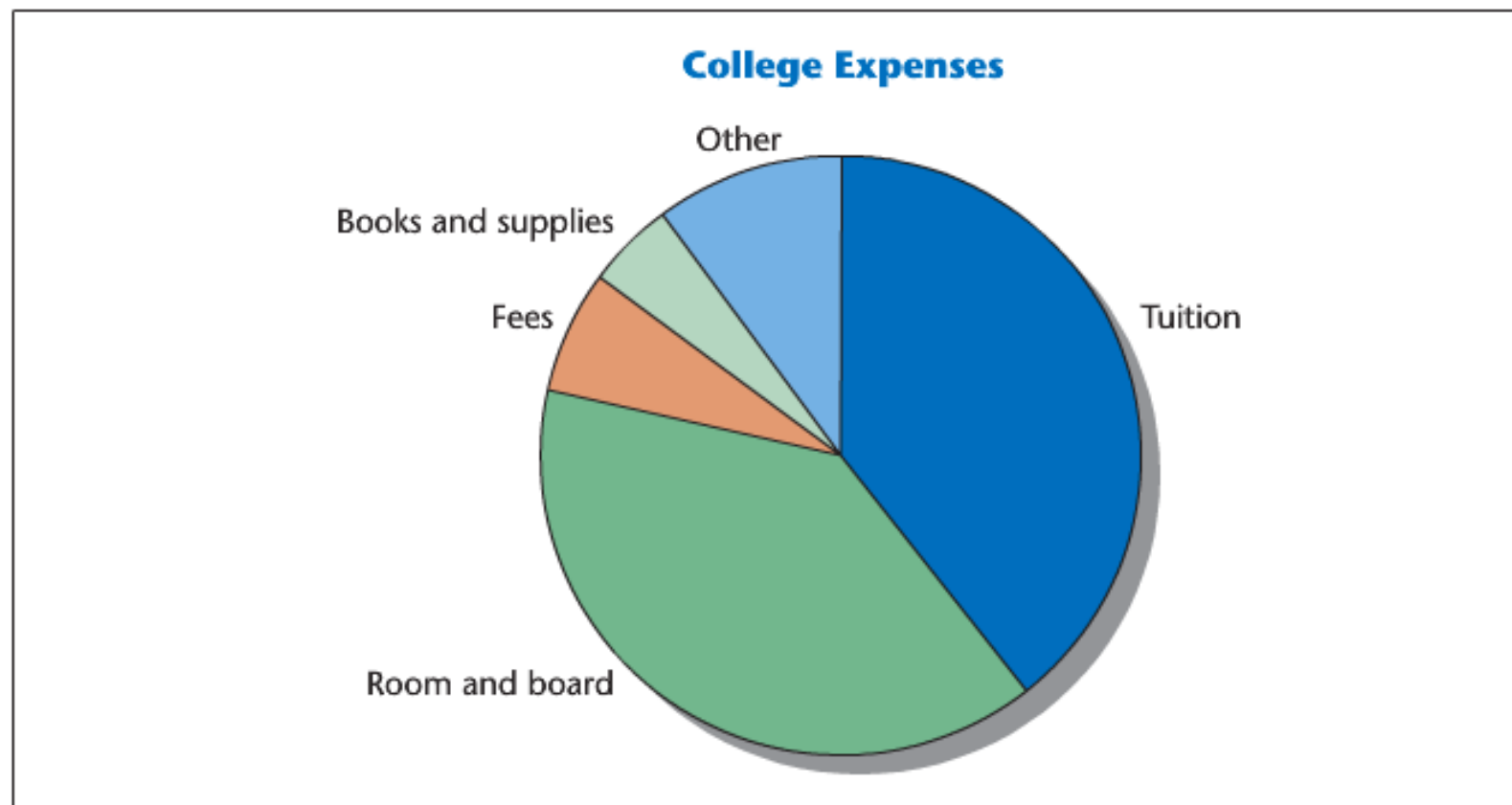
Figure 12.12 A Simple Pie Chart

Wedges may be labelled with categorical names only…

Pie charts
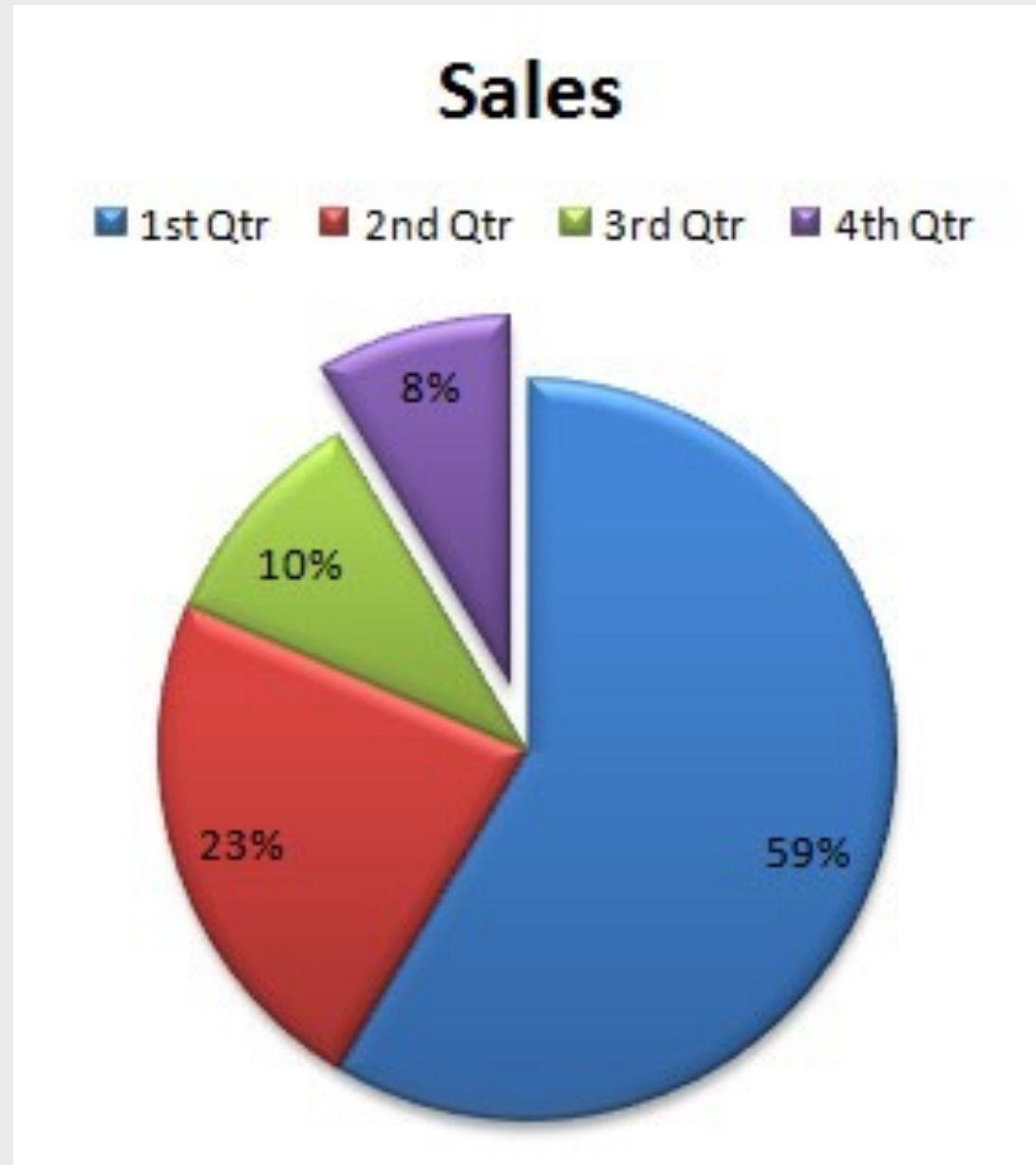
…or with percentages.

One piece may be extracted slightly for emphasis.

Pie charts
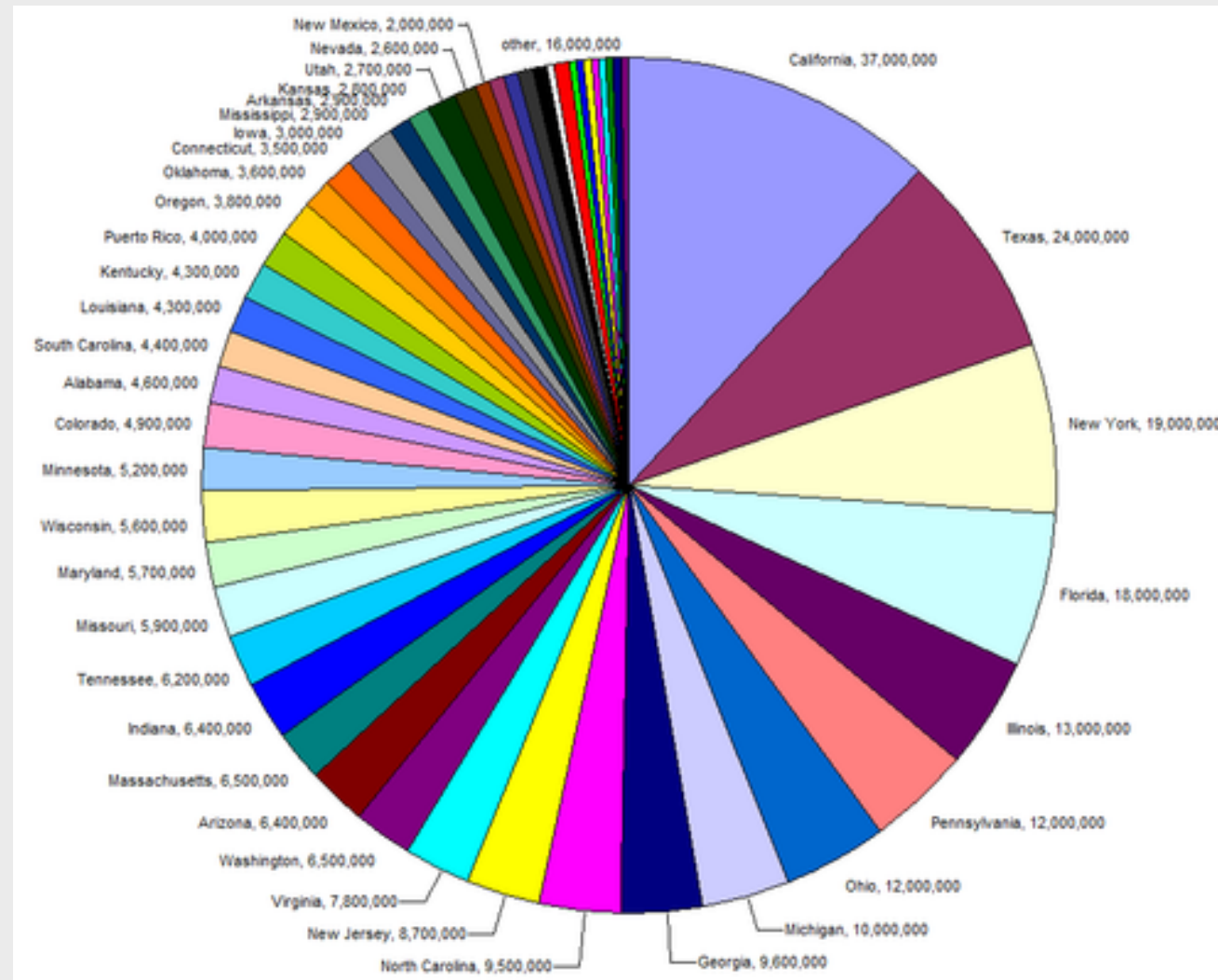
With a little creative effort,
you can drive people insane with pie charts.

Pie charts
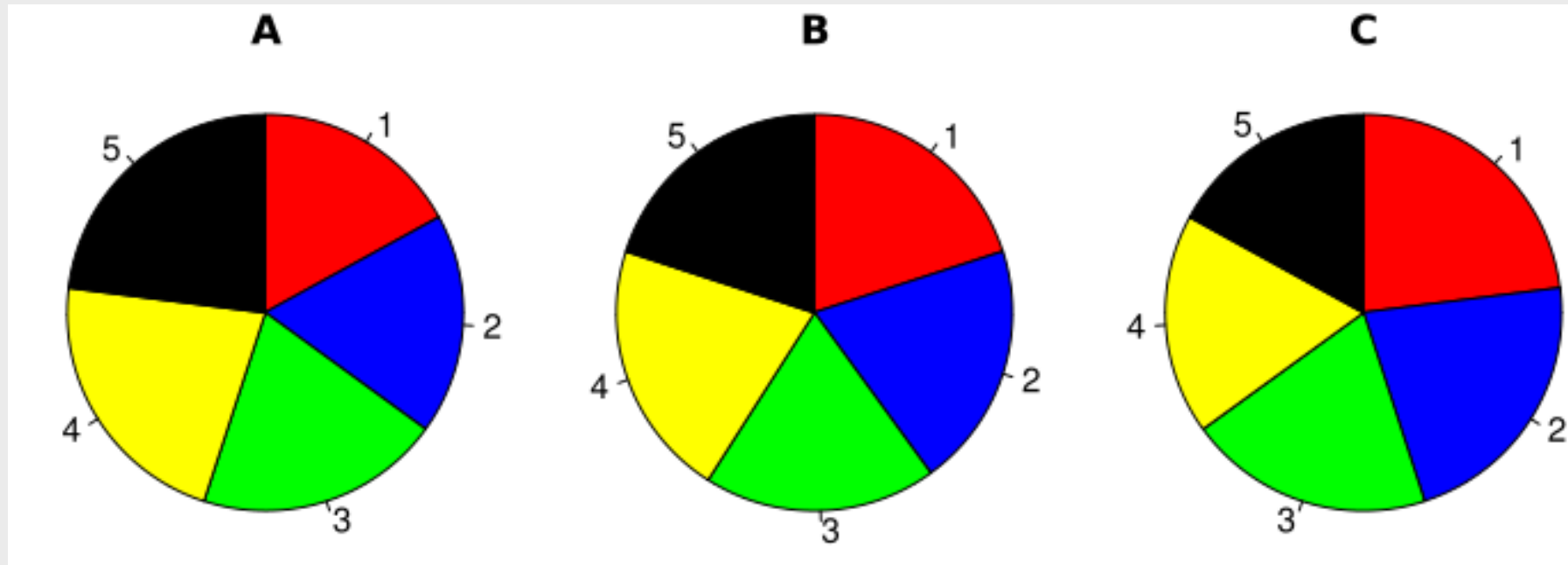
Try to understand trends from pie charts!

Pie charts
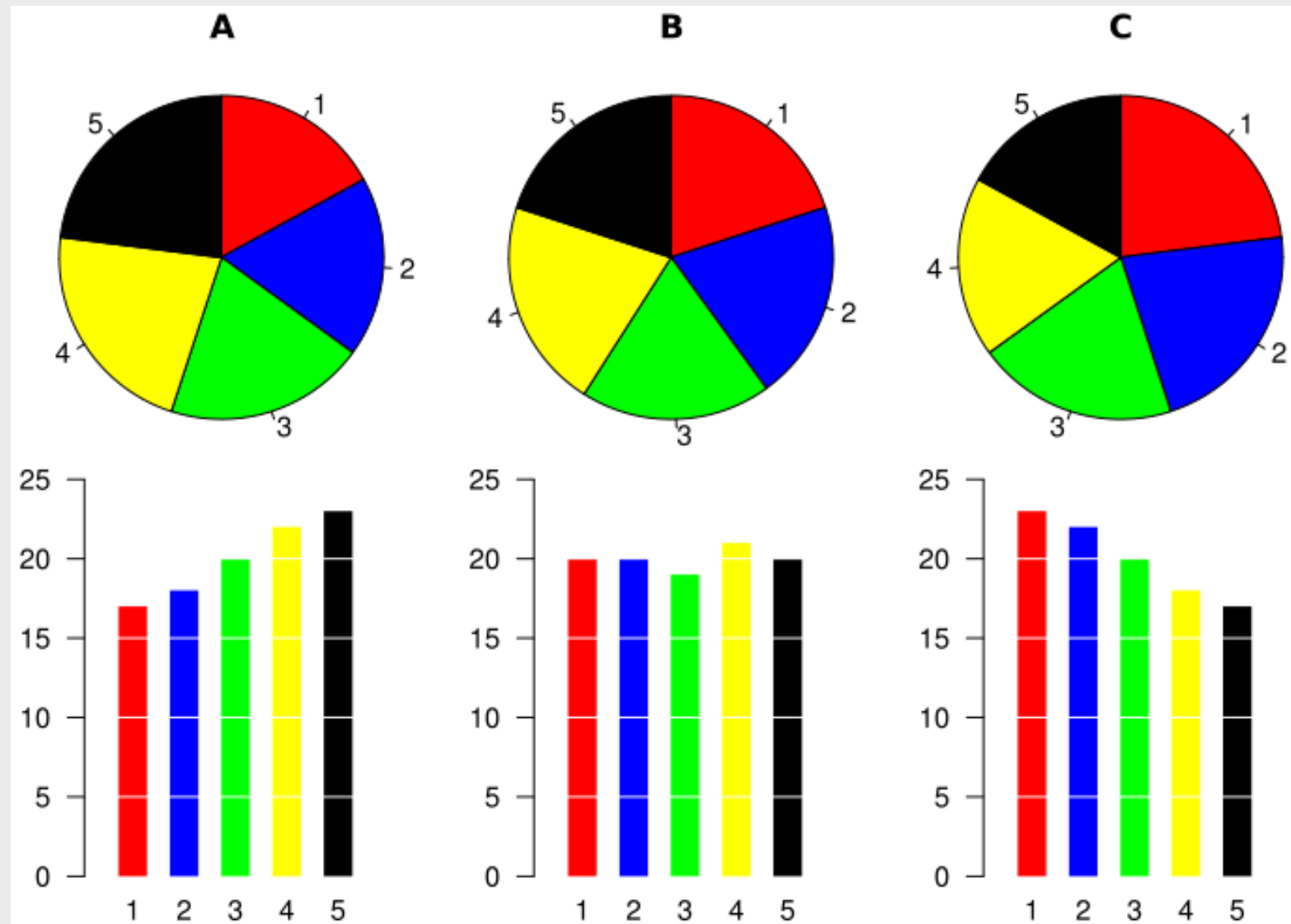
Try to understand trends from pie charts!

Organizational chart
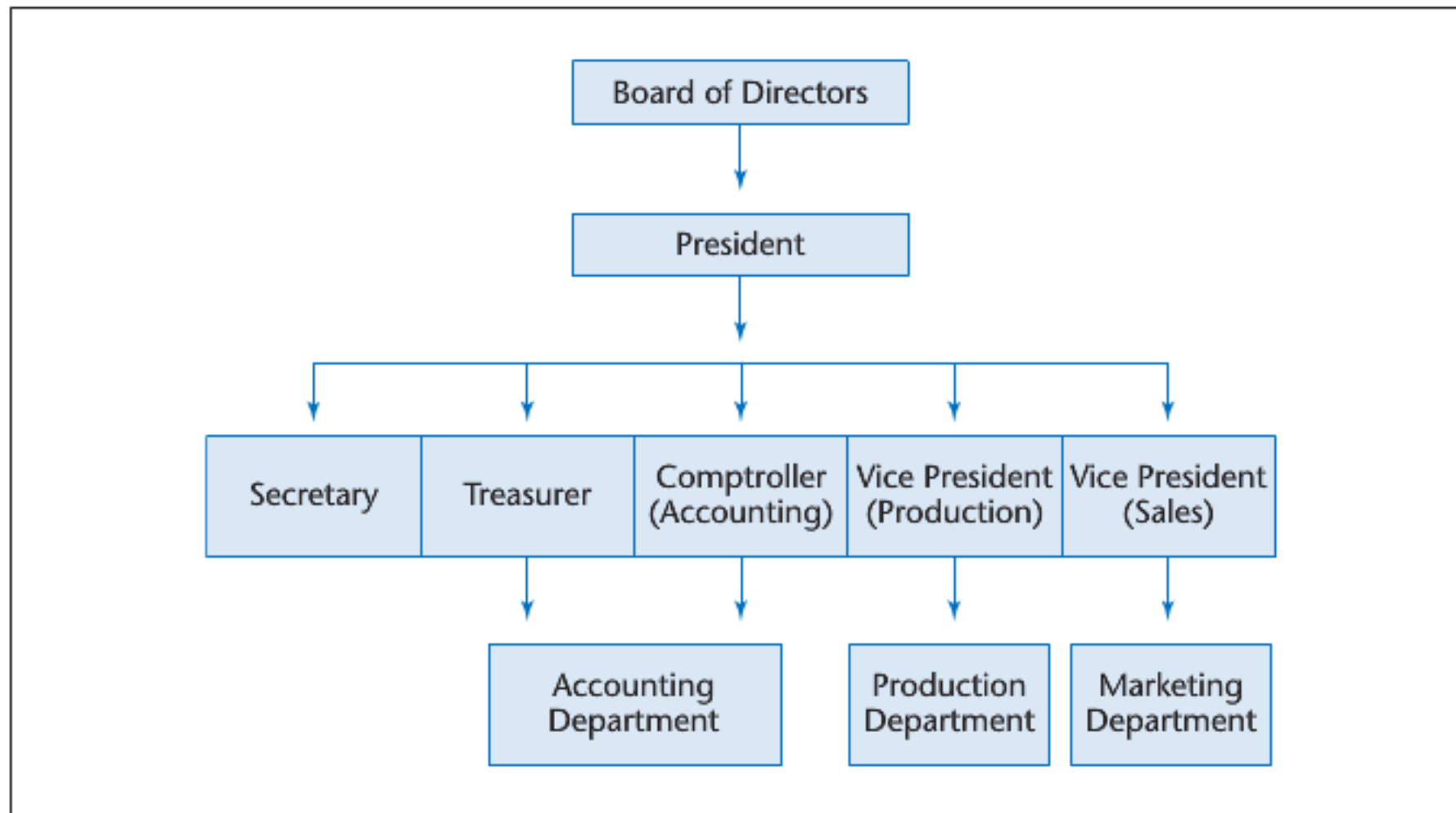
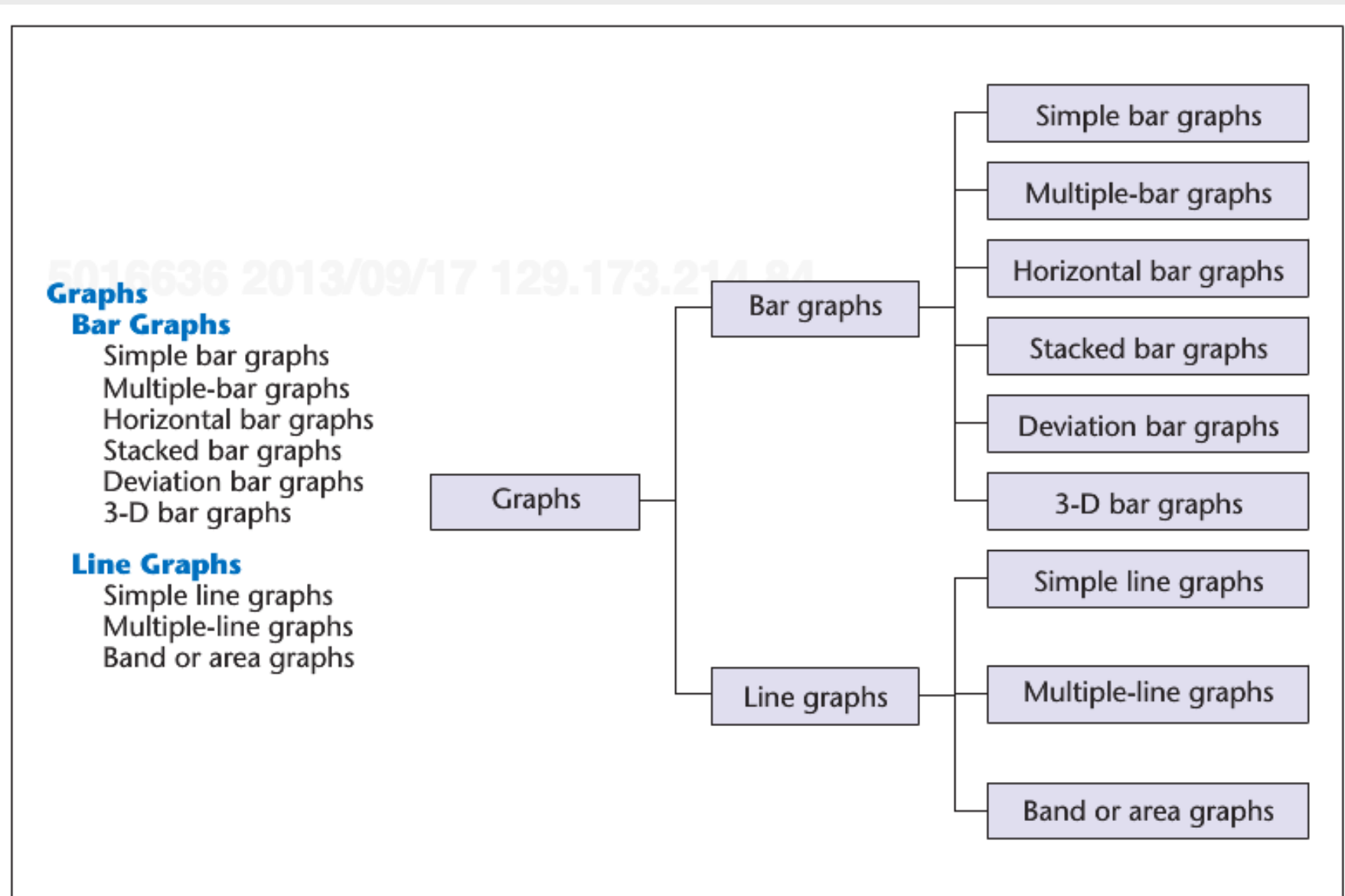Figure 12.14 An Organization Chart for One Corporation

Tree charts

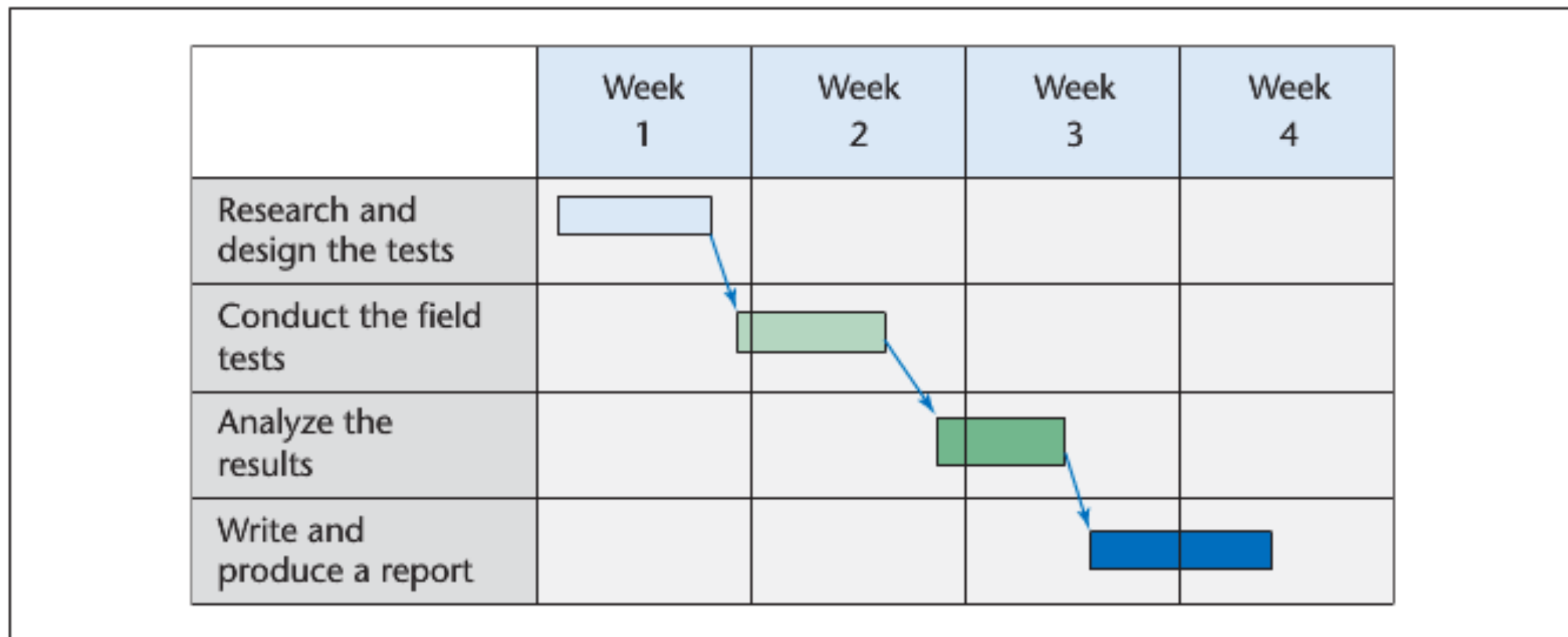**Figure 12.16** An Outline Converted to a Tree Chart

Gantt chart
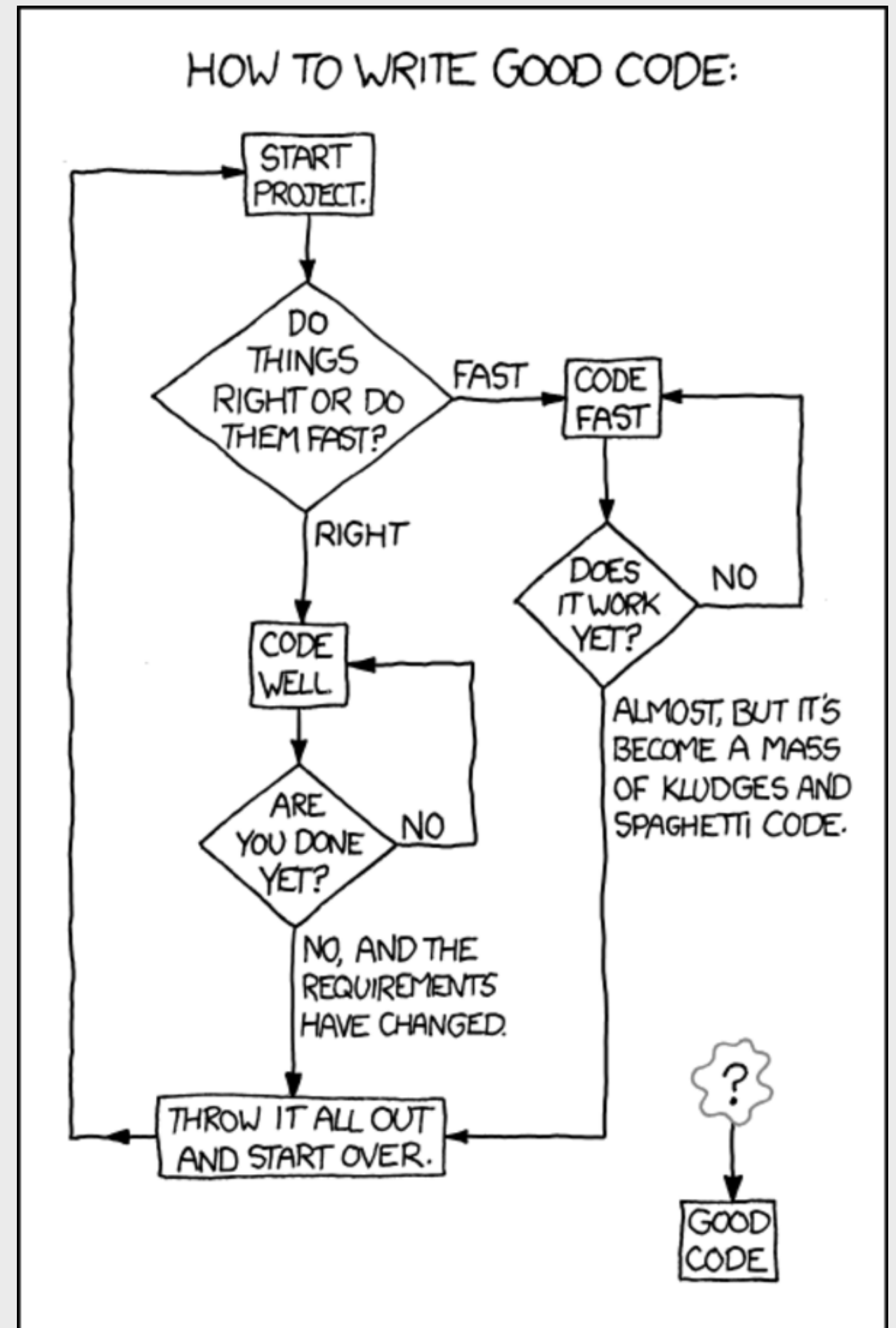

Figure 12.19 A Simple Gantt Chart

Note: Jon Peltier provides advice on using Microsoft Excel to produce Gantt charts at http://pubs.logicalexpressions.com/pub0009/LPMArticle.asp?ID=343.

Flow chart

Useful for decision-making,
trouble-shooting,
etc.

HOW TO WRITE GOOD CODE:

START PROJECT.

DO THINGS RIGHT OR DO THEM FAST?

FAST → CODE FAST

RIGHT

CODE WELL

DOES IT WORK YET?

NO

ARE YOU DONE YET?

NO

ALMOST, BUT IT'S BECOME A MASS OF KLUDGES AND SPAGHETTI CODE.

NO, AND THE REQUIREMENTS HAVE CHANGED.

THROW IT ALL OUT AND START OVER.

?

GOOD CODE

Diagrams

Many different kinds exist:
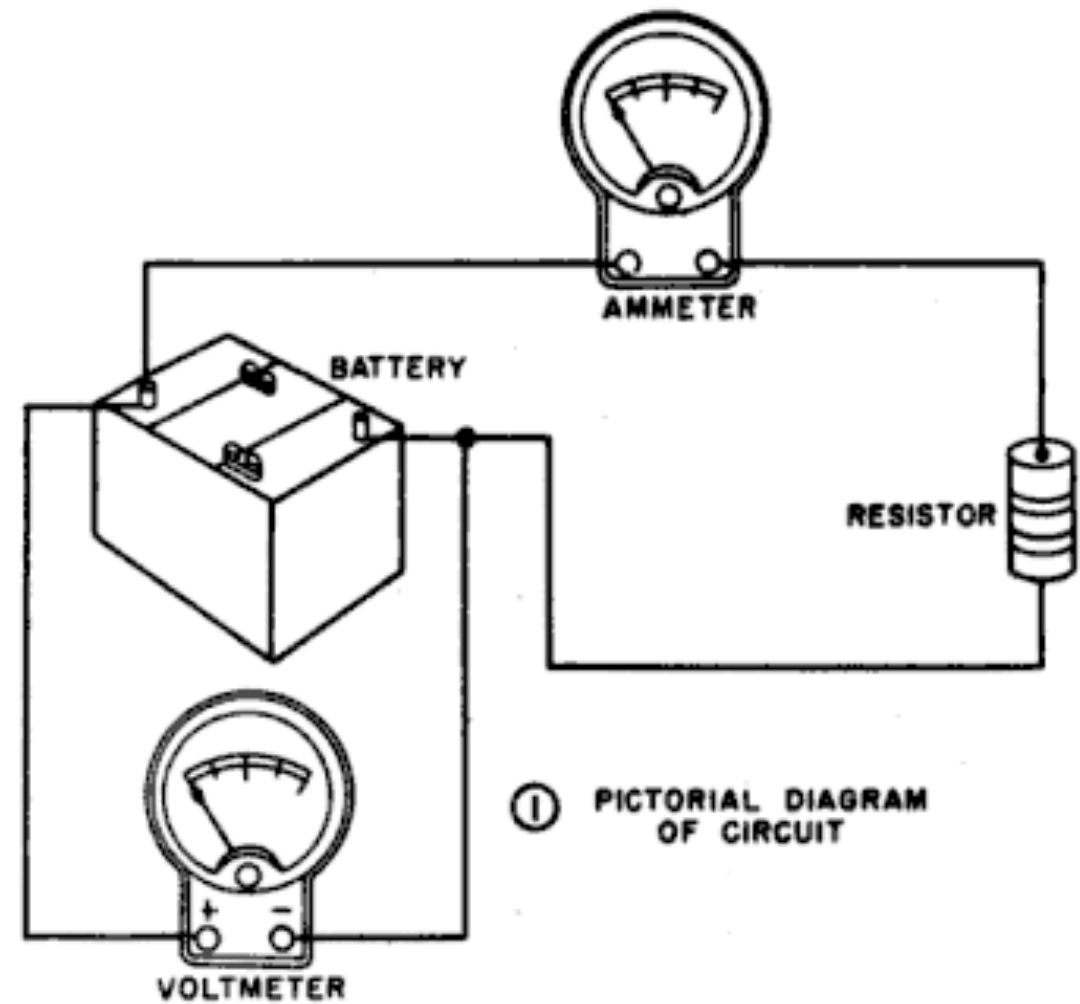
circuit schematics
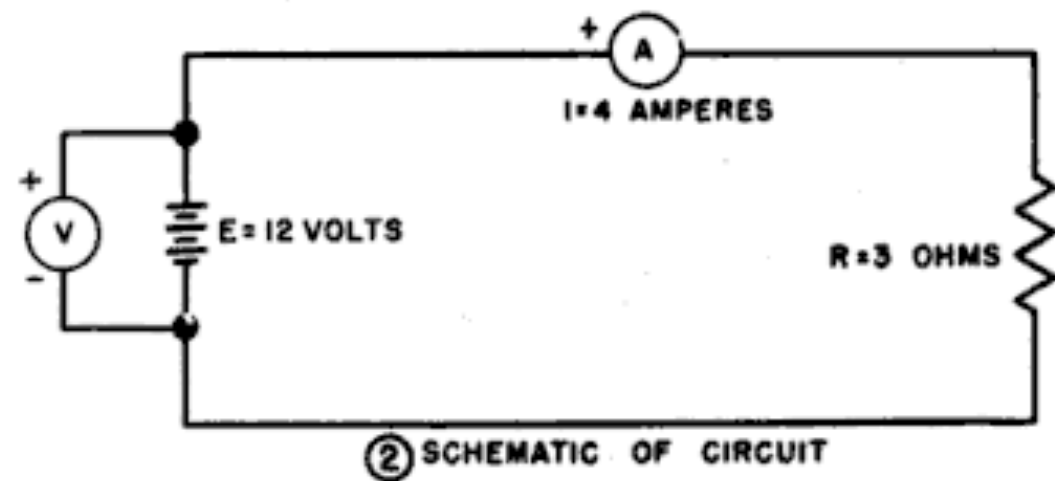
Figure 48. Diagram of a basic circuit.

Diagrams

Many different kinds exist:

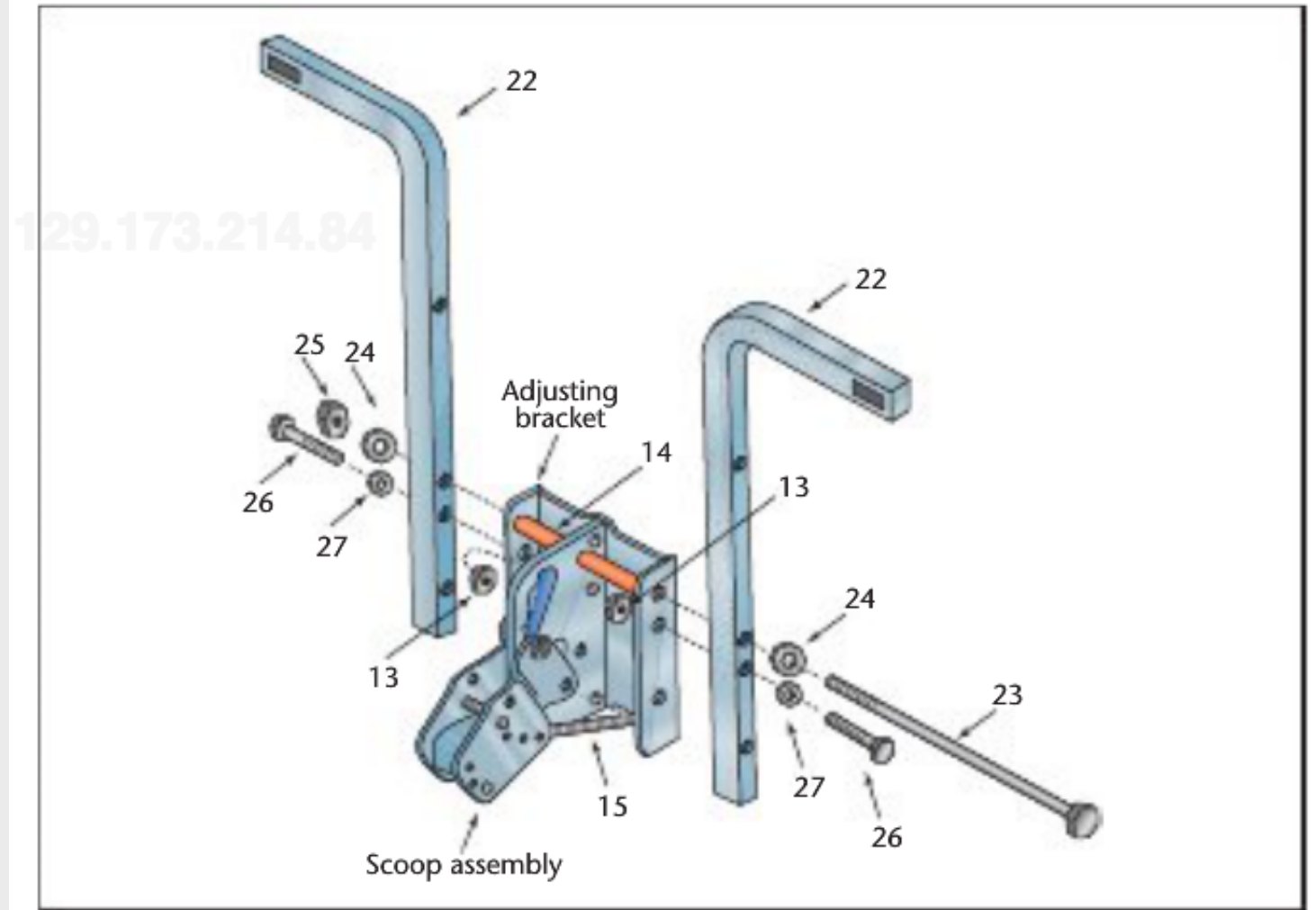   circuit schematics

    diagrams of parts

Figure 12.21 An Exploded Diagram of a Brace for a Basketball Hoop

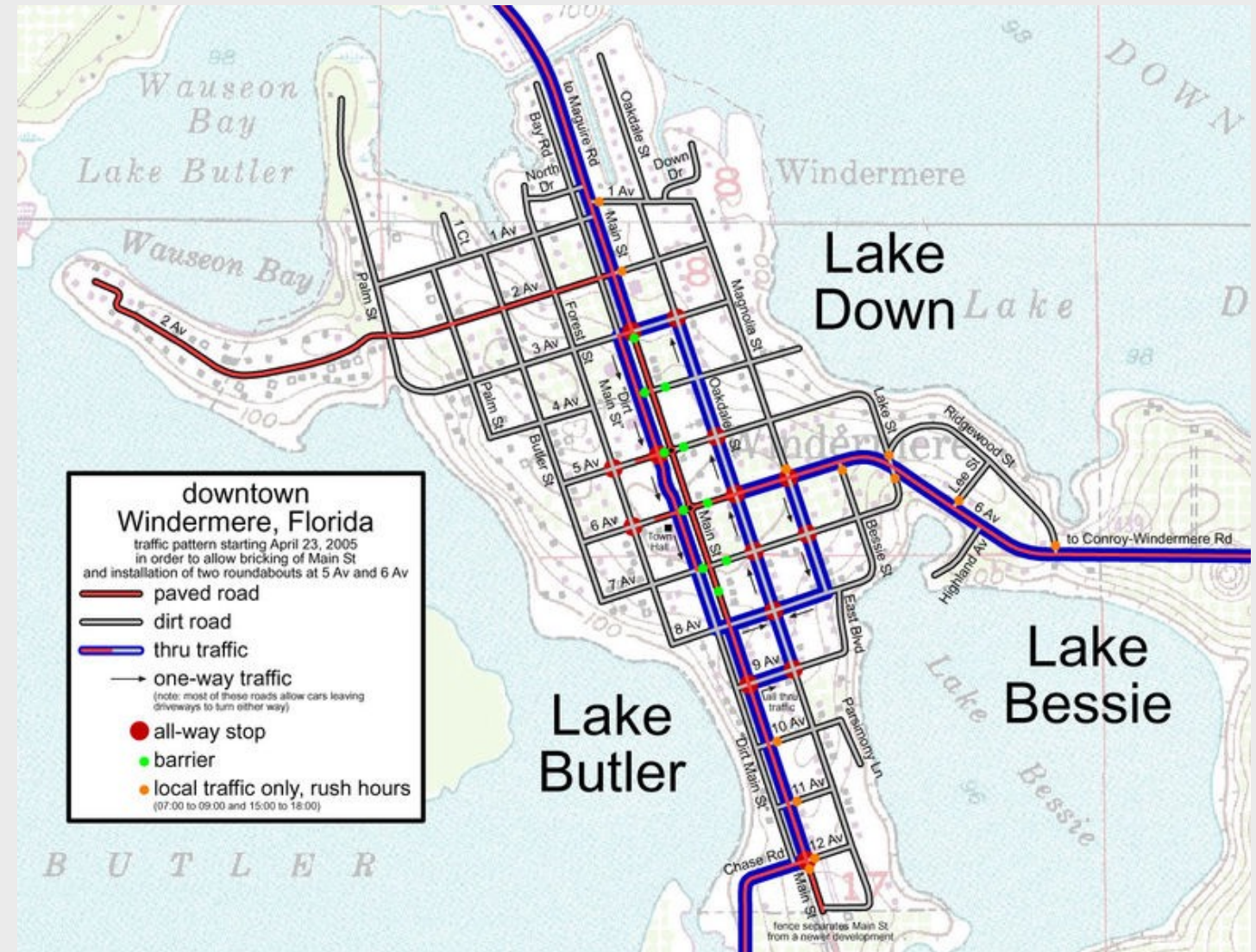Source: Courtesy of Spalding.

Diagrams

Many different kinds exist:

circuit schematics

diagrams of parts

maps

Summary

Many kinds of illustrations exist.

Decide which may be most appropriate for your situation.

Use them wisely with numbers and labels
(above for tables, below for figure).