1.1 / 27, 30, 39, 48, 49, 52, 60, 67, 73, 74, 86, 87, 90

27 Write w/out parentheses:

$$-\frac{5}{2}(2x-4y) = \boxed{-5x+10y}$$

---

30 Perform the indicated operations:

a) $\frac{2}{3} - \frac{3}{5}\left(\frac{3}{3}\right) = \frac{10}{15} - \frac{9}{15} = \boxed{\frac{1}{15}}$

b) $\left(\frac{24}{24}\right)1 + \frac{5}{8}\left(\frac{3}{3}\right) - \frac{1}{6}\left(\frac{4}{4}\right) = \frac{24+15-4}{24} = \boxed{\frac{35}{24}}$

---

39 Write using inequalities

a) x is positive: $\boxed{x>0}$

b) t is less than 4: $\boxed{t<4}$

c) a is greater than or equal to π: $\boxed{a \geq \pi}$

d) x is less than $\frac{1}{3}$ and greater than -5: $\boxed{-5 < x < \frac{1}{3}}$

e) the distance from p to 3 is at most 5: $\boxed{|p-3| \leq 5}$

1.1 / 48, 49, 52, 60, 67, 73, 74, 86, 87, 90

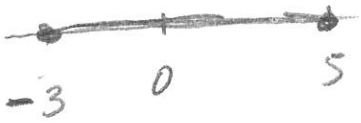
Express in terms of inequalities, then graph:

48 $(2, 6]$ $2 < x \leq 8$

49 $[2, 8)$ $2 \leq x < 8$

52 $(-\infty, 1)$ $-\infty < x < 1$

60 Express in interval notation:

a) 

$[-3, 5]$

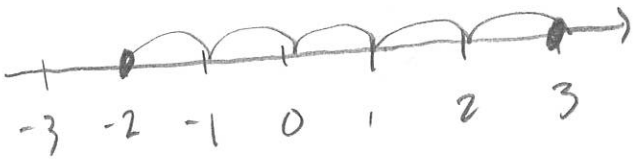
b) 

$(-2, 0]$

67 Evaluate:

a) $|100| = 100$ b) $|-73| = 73$

Find the distance between the given numbers

73 

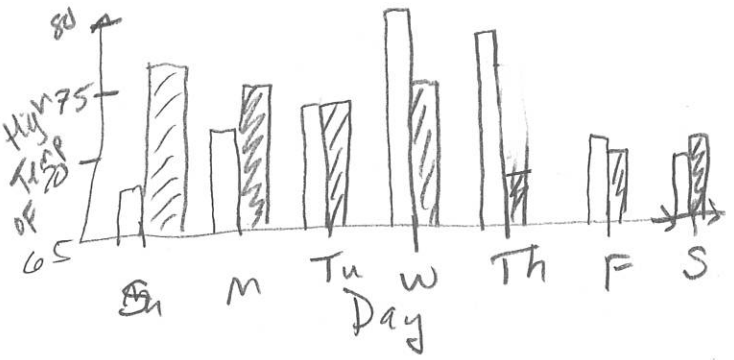
distance = 5

74 

distance = 4

1.1/ 86, 87, 90

86 Temp Variation, Bar graph



□ Omak, WA ← T_O

▨ Geneseo, NY ← T_G

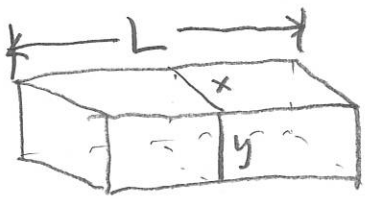
	Su	M	Tu	W	Th	F	S
$T_O - T_G$	-9	-3	0	5	8	1	-1
$\lvert T_O - T_G \rvert$	9	3	0	5	8	1	1

Which gives more info?

$T_O - T_G$ because you know where it is warmer.

87 Mailing a Package girth: distance around ≤ 108

$$L + 2(x+y) \leq 108$$



a) Will they accept 6" wide × 8" deep × 5 ft l?

$L = 5\,ft * \frac{12\,in}{ft} = 60\,in \quad x = 6\,in \quad y = 8\,in$

$L + 2(x+y) = 60 + 2(6+8) = 60 + 2(14) = 60 + 28 = 88$

yes

2 ft × 2 ft × 4 ft?

$L = 4\,ft * \frac{12\,in}{ft} = 48" \quad x = y = 2\,ft \times \frac{12\,in}{ft} = 24"$

$48 + 2(24+24) = 48 + 2(48) = 3(48) = 144"$ no

b) greatest acceptable length for square base of 9" × 9"?

$L + 2(9+9) \leq 108 \rightarrow L + 36 \leq 108 \rightarrow L \leq 72$

max length: 6 ft = 72"

1.1/20

90 Limiting Behavior of Reciprocals

What happens as x gets large?

1/x gets small!

What happens as x gets small?

1/x gets large!

x	1/x
1	1
2	0.5
10	0.1
101	0.01
1000	0.001

x	1/x
1.0	1
0.5	2
0.1	10
0.01	100
0.001	1000