

19b, 20-23

19b) $C(f) = \frac{5}{9}(f-32)$

b) i) $C(f) = 20 \Rightarrow f = ?$

$\left(\frac{9}{5}\right) 20 = \left(\frac{9}{5}\right) \frac{5}{9}(f-32)$

$36 = f - 32 + 32$

$68 = f$

19a) i) $C(50) = \frac{5}{9}(50-32)$

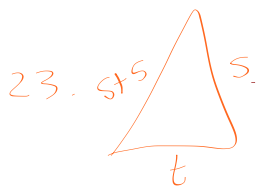
20. $F = \frac{9}{5}C + 32 \Rightarrow F(C) = \frac{9}{5}C + 32$

21. $\frac{8w}{8} = \frac{9}{8} \Rightarrow w = \left(\frac{9}{8}\right)$ $F(-40) = \frac{9}{5}(-40) + 32$
 $= -72 + 32$
 $= -40$

$p = 2l + 2w$

$p = 2l + 2\left(\frac{9}{8}\right) \Rightarrow p = 2l + \frac{18}{8}$

$p(l) = 2l + \frac{18}{8}$



$P = 16$
 $s + s + 5 + t = 16$

$t = -2s + 11$

domain \rightarrow input

$\{s \in \mathbb{R} \mid 0 < s < 5.5\}$

is an element \uparrow
 real numbers \uparrow
 such that \uparrow

range \rightarrow output

$\{t \in \mathbb{R} \mid 0 < t < 11\}$

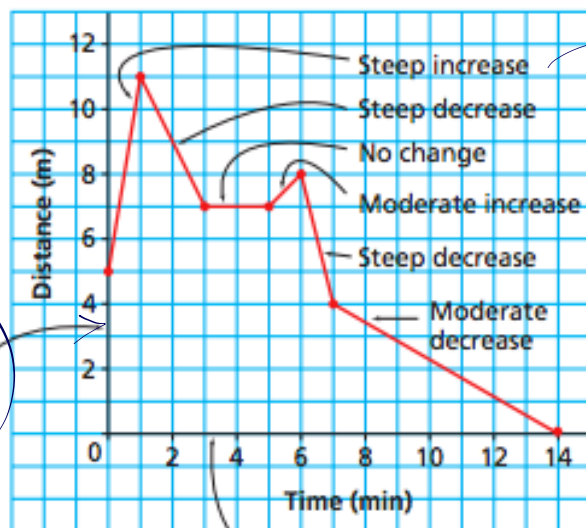
S
A
M
D
E
B

$\frac{2}{3} \times \frac{3}{2} = 1$

5.3 & 5.4 Interpreting and Graphing Data

Discuss pg. 276 together & do "Try This" on pg. 277 with a partner.

The properties of a graph can provide information about a given situation.



Scale for dependent variable

Scale for independent variable

rate of change

Speed = rate of change

$$= \frac{\text{change in } d}{\text{change in } t}$$

$$= \frac{\Delta d}{\Delta t}$$

Ex. Each point on this graph represents a bag of popping corn. Explain the answer to each question below.

a) Which bag is the most expensive?
What does it cost? $C \Rightarrow 7\$$

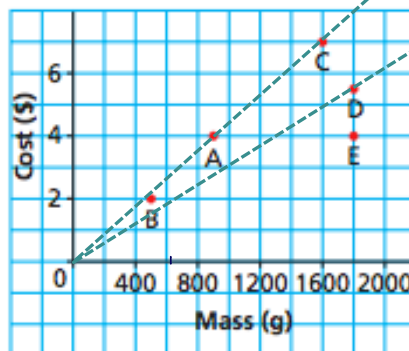
b) Which bag has the least mass?
What is this mass? $B \Rightarrow 500 \text{ g}$

c) Which bags have the same mass?
What is this mass?
 $D = E = 1800 \text{ g}$

d) Which bags cost the same?
What is this cost?
 $A = E = 4\$$

e) Which of bags C or D has the better value for money?

Costs and Masses of Various Bags of Popcorn

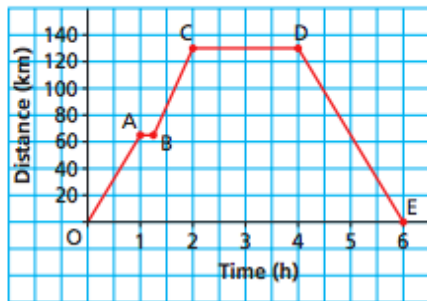


higher cost/mass

lower cost per mass = better value

Ex. Describe the journey for each segment of the graph.

Day Trip from Winnipeg to Winkler, Manitoba



$O \rightarrow A$: 1 hr \rightarrow 65 km

$A \rightarrow B$: 15 min. break

The distance between Winnipeg and Winkler is 130 km. $B \rightarrow C$: 45 min \rightarrow 65 km

$C \rightarrow D$: hung out in Winkler for 2 hrs

$D \rightarrow E$: drove back in 2 hrs

Hook

Together: read example 3 on page 280

Read: "Make Connections" on pg. 284

To rent a car for less than one week from Ace Car Rentals, the cost is \$65 per day for the first three days, then \$60 a day for each additional day.

Number of Days Car Is Rented	Total Cost (\$)
1	65
2	130
3	195
4	255
5	315
6	375

input (domain) \rightarrow indep.

dependent output (range)

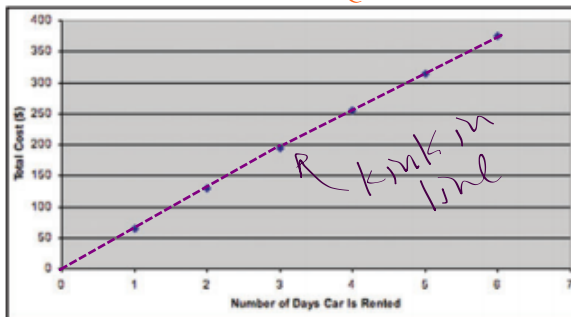
Domain = $\{1, 2, 3, 4, 5, 6\}$

Range = $\{65, 130, 195, 255, 315, 375\}$

Why are the points on the graph not joined?

Is this relation a function? How can you tell?

What is the domain? What is the range?



because the data are discrete # of days means can't be divided

yes it is a function \rightarrow each x-value has only one y-value

Quiz in 2 days... not tomorrow

Homefun: Pg. 281 # 3-6, 8-10, 12-17 & pg. 286 #1-2

Interpolation: is estimating between known points on a graph.