



Review for 4.1 - 4.7 Test

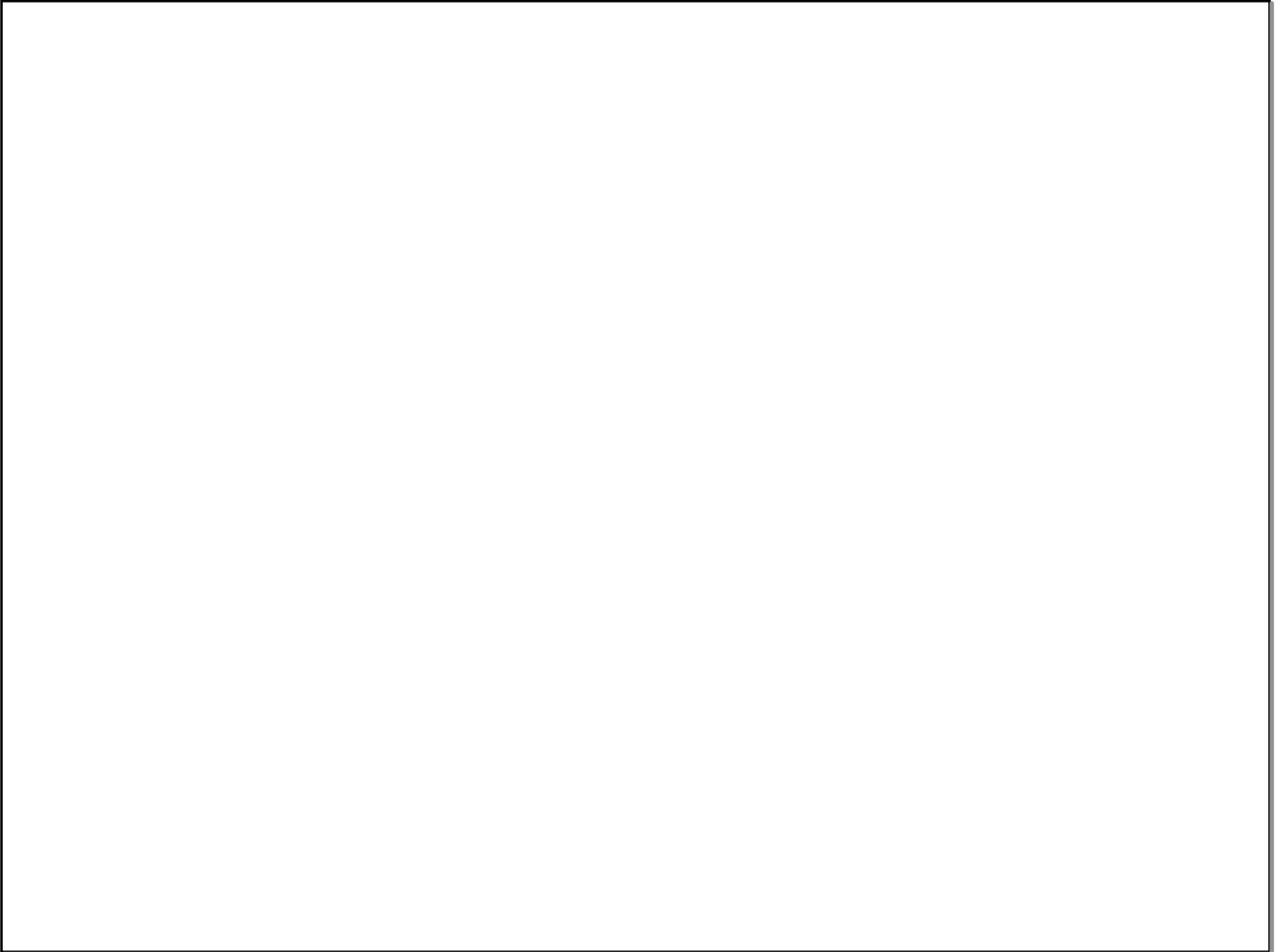
(1) John earns \$5.50 per hour mowing lawns. Write a rule to describe how the amount of money m earned is a function of the number of hours h spent mowing lawns.

$$m(t) = 5.50h \quad \left(\frac{1}{2} = .5 \right)$$

(a) How much does John earn if he works 3 hours?

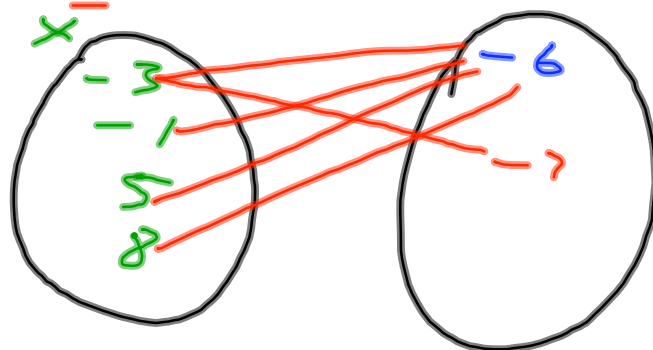
(b) How much does John earn if he works 3 hours and 30 minutes? $3.5h$

(c) How much does John earn if he works 3 hours and 45 minutes? $\frac{3}{4} = 3.75$



(2) Draw a mapping diagram that represents the relation and determine whether the relation is a function

~~-3~~, ~~-1~~, ~~5~~, ~~8~~, -6



(3) The total cost of gas varies directly with the number of gallons purchased. Gas costs \$3.86 per gallon. Write a direct variation to model the cost c for g gallons of ~~diesel~~.

gas

$$C = 3.86g$$

(4) Find the first, fourth, and tenth terms of the arithmetic sequence described by the given rule.

$$A(n) = 12 + (n - 1)4$$

$A(1) = 12$

$A(4) = 24$

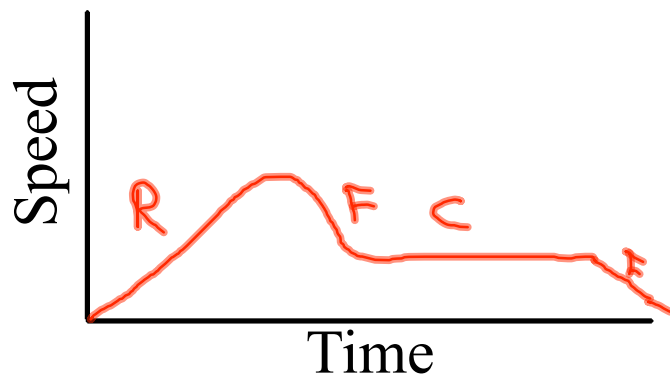
$A(10) = 48$

$12 + (1 - 1)4$

$12 + (0)4$

$12 + 0 = 12$

(5) Label each section of the graph
(rising, falling, constant)



(6) Emma is in the business of repairing home computers. She charges a base fee of \$45 for each visit and \$25 per hour for her labor. The total cost $c(x)$ for a home visit and x hours of labor is modeled by the function rule $c(x) = 45 + 25x$. Use the function rule to make a table of values.

x	$c(x) = 45 + 25x$	y	Point
0	$c(0) = 45 + 25(0)$	45	$(0, 45)$
1	$c(1) = 45 + 25(1)$	70	$(1, 70)$
2			
3			

(7) Find the range of $f(x) = -x + 2$ for
 the domain $\{-2, \cancel{1}, 0, \cancel{1}\}$

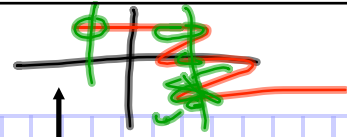
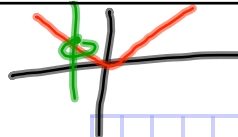
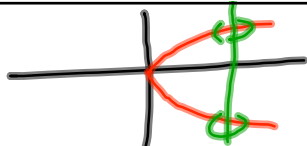
$$f(-2) = -(-2) + 2$$

$$2 + 2 = 4$$

$$f(0) = -(0) + 2$$

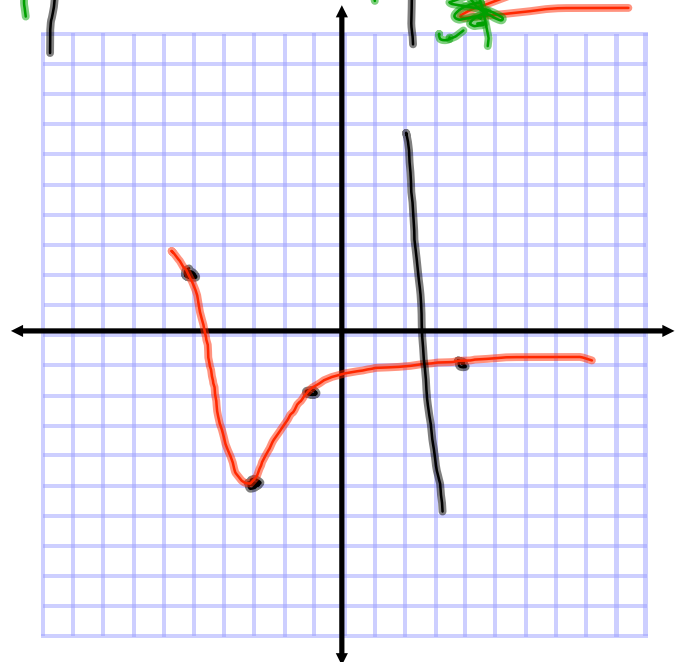
$$0 + 2 = 2$$

+	-	-
-	+	-
-	-	+



(8) Use the vertical test to determine whether the relation is a function.

$(-5, 2)$, $(-3, -5)$, $(-1, -2)$,
 $(3, -1)$



(9) Find the domain and range of the ~~relation~~. $D = 66, 37, 26$

x	y
66	42
37	24
26	17
26	24

$R = 42, 24, 17$

(10) Write a function rule for the table.

x	y
2	4
1	2
-1	-2
-2	-4

$$f(x) = 2x$$

(10) Write a function rule for the table.

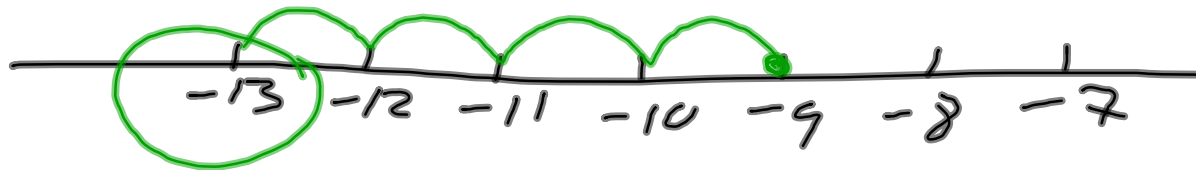
x	v
2	4
1	1
-1	1
-2	4

$$f(x) = x^2$$

(11) Evaluate $f(x) = -3x - 4$ for $x = 3$

$$\begin{aligned} & -3(3) - 4 \\ & -9 - 4 \end{aligned}$$

$$\boxed{-13}$$



(12) Graph $y = -3x + 5$

x	$y = -3x + 5$	y	Point
-1	$-3(-1) + 5$	8	$(-1, 8)$
0	$-3(0) + 5$	5	$(0, 5)$
1	$-3(1) + 5$ $-3 + 5$	2	$(1, 2)$

(13) Graph $y = |x| + 2$

x	$y = x + 2$	y	Point
-1	$ -1 + 2$	3	$(-1, 3)$
0	$ 0 + 2$	2	$(0, 2)$
1	$ 1 + 2$	3	1

-2
2

(14) Find the next two numbers in the pattern $-3, -1, 1, 3, \underline{5}, \underline{7}$



(15) Find the common difference of the arithmetic sequence. 9, 14, 19, 24

$$d = 5$$

A diagram illustrating the common difference of an arithmetic sequence. The sequence 9, 14, 19, 24 is shown. Red curved lines connect 9 to 14, 14 to 19, and 19 to 24. Below each of these three arcs is a red number 5, indicating that the difference between consecutive terms is 5.

Textbook

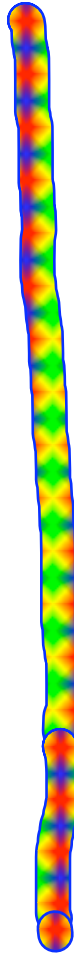
P. 251 1-3 odd

P. 258 1

P. 267 9

P. 274 11, 13

P. 282 9, 11



P. 290 7, 9

P. 293 1

P. 298 11, 13

P. 299 37

Textbook

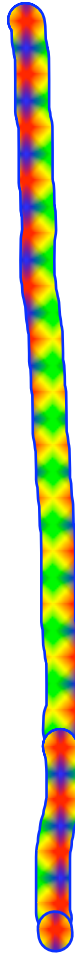
P. 251 5, 7

P. 258 —

P. 267 11

P. 274 15

P. 282 13



P. 290 11

P. 293 —

P. 298 15, 17

P. 299 39

Green workbook

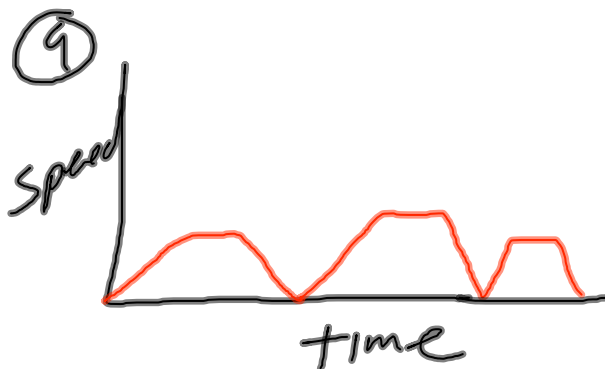
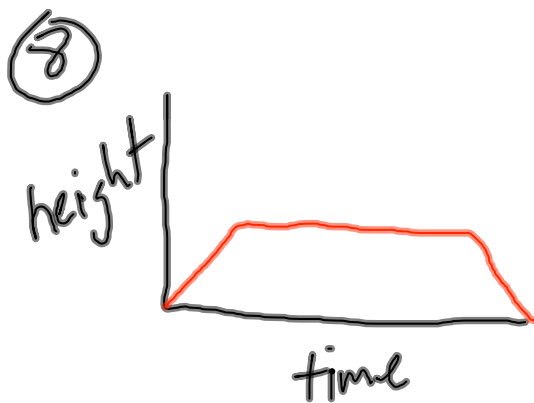
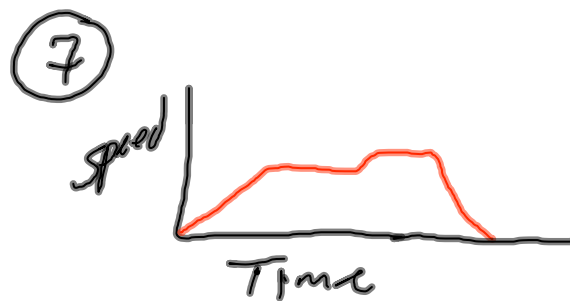
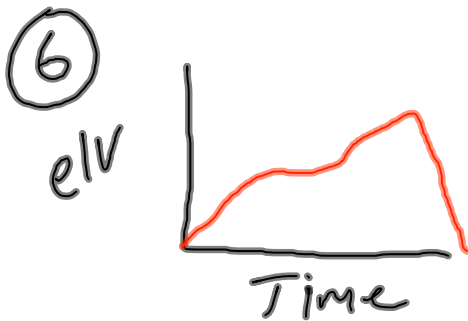
P. 57 ① constant speed



③ same distance

④ falling - less distance from home

⑤ greater distance from home



Ps9.

$$\textcircled{1} D = \{-3, -1, 0, 2, 4\}$$

$$R = \{-7, -3, -1, 3, 7\}$$

$$\textcircled{2} D = \{-5, -4, 0, 1, 2\}$$

$$R = \{-4, 2, 3, 4\}$$

$\textcircled{3}$ yes $\textcircled{4}$ no

$\textcircled{5}$ yes $\textcircled{6}$ no

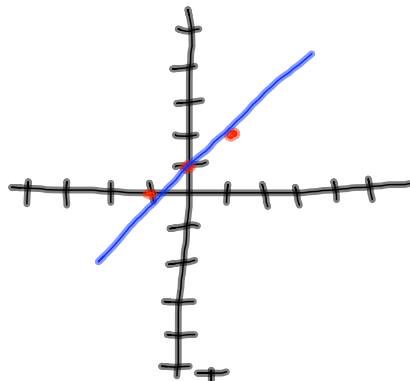
$\textcircled{7}$ yes $\textcircled{8}$ no

$\textcircled{9}$ - 9 $\textcircled{10}$ 0

P61

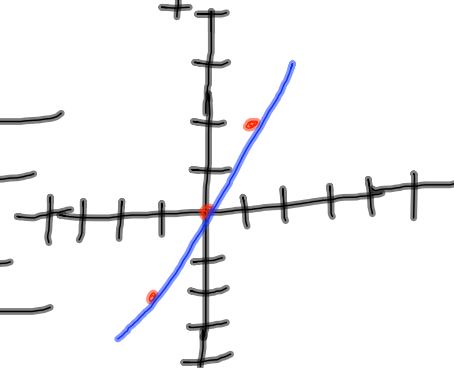
①

x	x+1	y	Point
1		2	(1, 2)
0		1	(0, 1)
-1		0	(-1, 0)



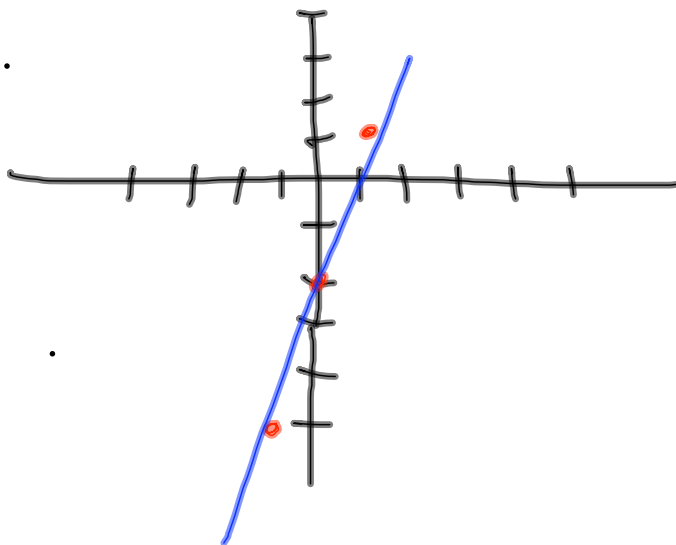
②

x		y	Point
1		2	(1, 2)
0		0	(0, 0)
-1		-2	(-1, -2)



③

x		y	Point
1	$3(1) - 2$	1	(1, 1)
0	$3(0) - 2$	-2	(0, -2)
-1	$3(-1) - 2$	-5	(-1, -5)



P63.

$$\textcircled{1} f(x) = x + 3$$

$$\textcircled{2} f(x) = 3x$$

$$\textcircled{3} f(x) = x - 5$$

$$\textcircled{4} T = 0.39b$$
$$\text{\$ } 1.39$$

$$\textcircled{5} T = 50 + 10p$$

$$50 + 10(6)$$

$$= \text{\$ } 110.00$$

P67

① $d = 6$ ② $d = -3$

③ $d = -5$ ④ $d = 3$

⑬ 25, 31 ⑭ 4, 7

⑮ -19, -24

⑰ $A(n) = A_1 + (n-1)d$

$$\begin{aligned} n &= 5 \\ d &= 10 \\ A_1 &= 1 \end{aligned}$$

$$A(5) = 1 + (5-1)10$$

$$1 + (5-1)10$$

$$1 + (4)10$$

$$= 41$$

