LETTER TO STUDENT

Dear Student

This is your myJEMM+data workbook. Over the course of the JEMM+ program it will show how well your abilities in mathematics are developing. It is allocated to you, and you alone, so please fill in your details on the back cover.

Here's an explanation of the myJEMM+data components.

Workbook components

Daily Data: Daily, you record and summarise your own data. For incorrect responses, classified as Bugs, you shade the BugKey in the corresponding row on the BugBoard. This allows you and your teacher to monitor your progress.
For example, see myJEMM+data pages 2–9.

Visual representation: This provides you with base knowledge and daily practice in reading and interpreting data to prepare you for the Round task.
For example, see myJEMM+data pages 2–9.

Round task: JEMM+ is structured into 24 rounds each consisting of 5 lessons. At the end of each round you read, interpret and complete tables and graphs building on the Visual representation knowledge you have acquired.
For example, see myJEMM+data pages 24–25.

Self-evaluation: After each group of 20 lessons you self-evaluate and reflect on your growth in knowledge, understanding and achievement.
For example, see myJEMM+data pages 12–13.

JEMM+athon: To demonstrate your BugFree status you do a JEMM+athon, which consists of questions you have already done. This will help assess how well you have consolidated your knowledge.
For example, see myJEMM+data pages 14–15.

JEMM+athon to BugFree: You convert your scores to percentages to determine your BugFree status. This helps you to concentrate on personal growth rather than comparing yourself with other students.
For example, see myJEMM+data pages 44–47.

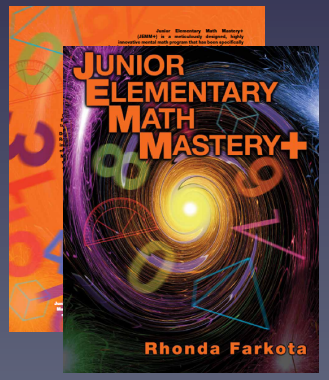
Challenge: This is designed to stimulate your thinking processes. It requires you to reflect on what you have learned.
See myJEMM+data pages 94–97.

Club BugFree Award: This is awarded when you score all correct responses over a number of consecutive lessons (to be decided by your teacher).
See myJEMM+data pages 99–103.

Other Awards: Accurate marking; Neat workbook.
See myJEMM+data pages 105–111.

Your myJEMM+data workbook is an important academic journal that records your progress in mathematics. I hope you will enjoy using it, and take pride in keeping it accurate and true. You never know, you might like to share it with family and friends or perhaps even me.

Best Wishes
Dr Rhonda Farkota



Click here Lesson 21

Click here Lesson 22

Click here Lesson 23

Click here Lesson 24

Click here Lesson 25

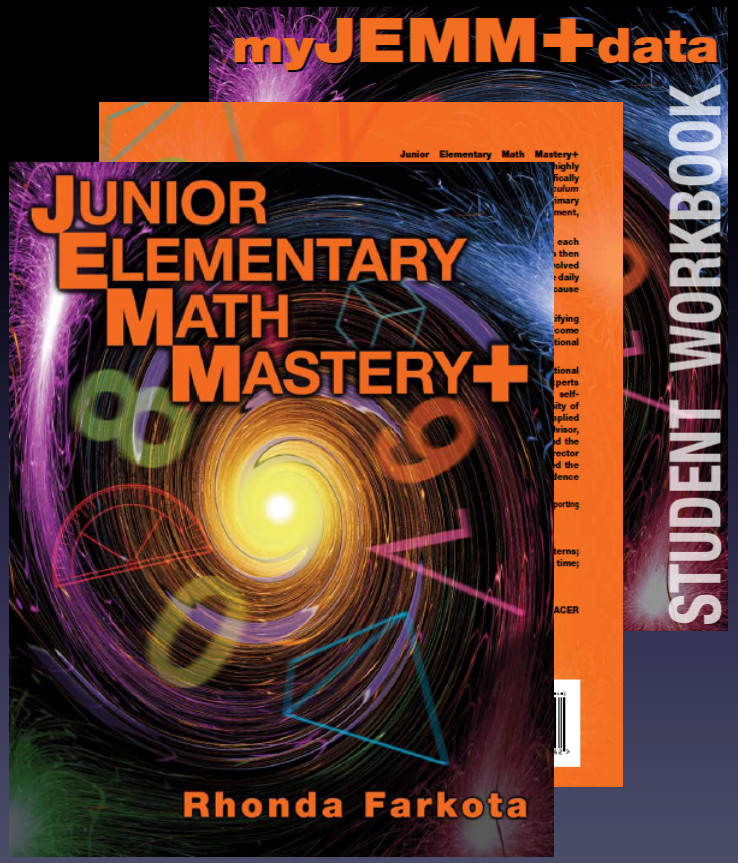
Click here Lesson 26

Click here Lesson 27

Click here Lesson 28

Click here Lesson 29

Click here Lesson 30



Lesson 21

Copyright 2016

Question 1

									0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110

Question 2

19	+	67	=	20	+	66
19	+	67	=	16	+	70
19	+	48	=	20	+	47
19	+	48	=	17	+	50

Question 3

Lesson 21

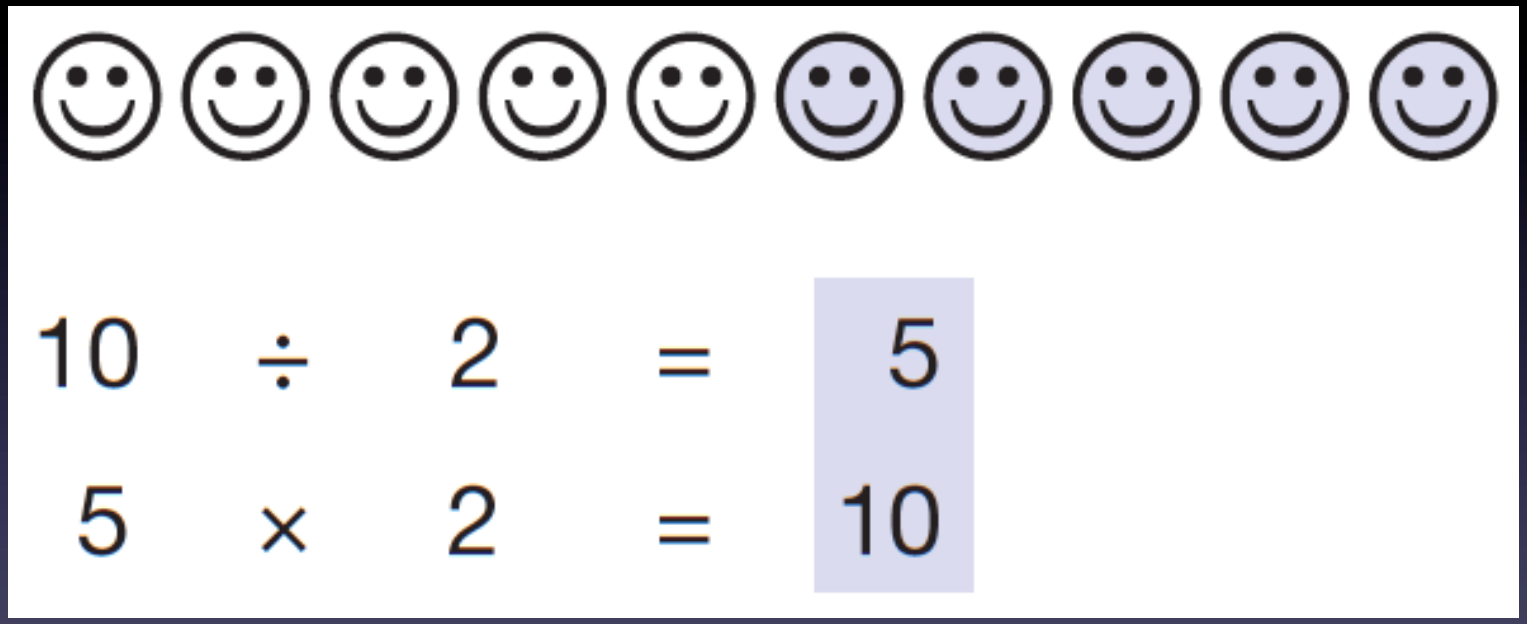
Question 4

10 × 8 =	H	T	Ones
	8	**0**	

1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8

Lesson 21

Question 5



$10 \div 2 = 5$

$5 \times 2 = 10$

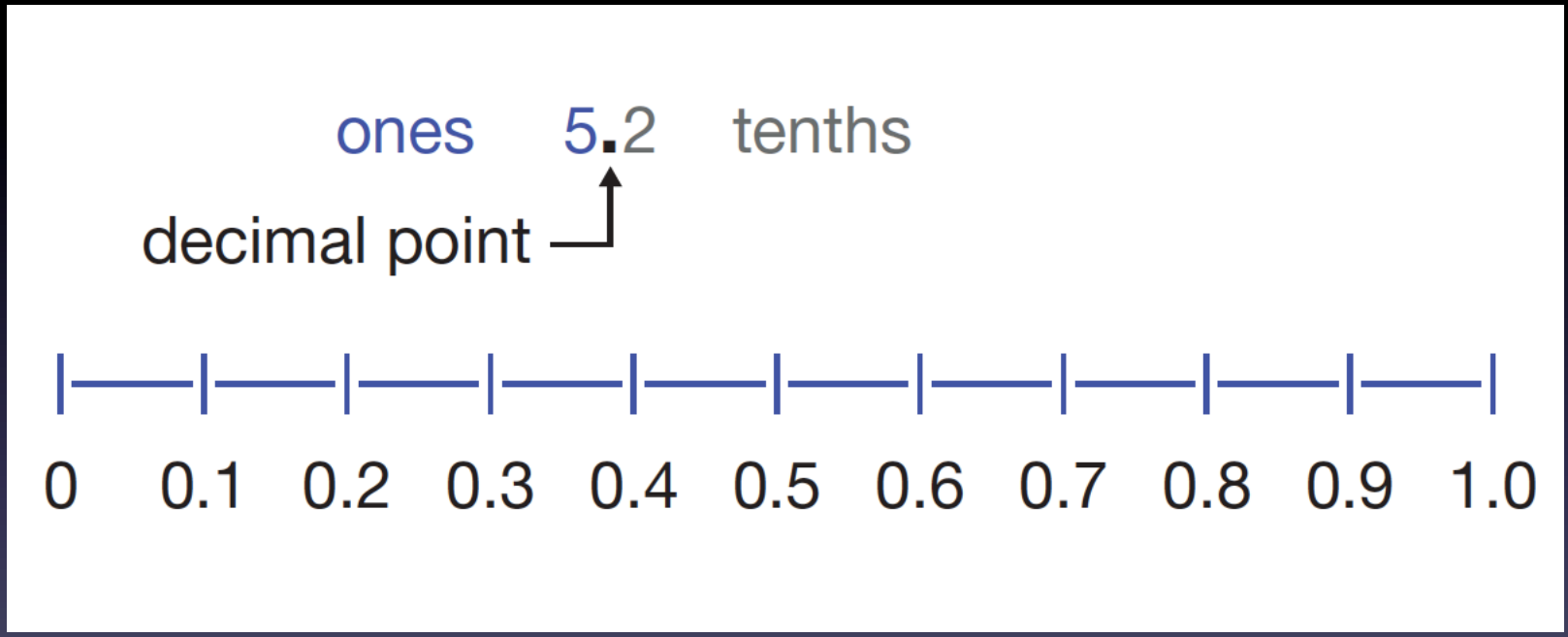
Question 6

Roman number system		
symbol	**value**	**example**
I	one	II = 1 + 1 = 2
V	five	VI = 5 + 1 = 6
X	ten	XI = 10 + 1 = 11

Question 7

A
1 whole
B
1/2
1/2
C
1/4
1/4
1/4
1/4
D
1/5
1/5
1/5
1/5
1/5
E
1/8
1/8
1/8
1/8
1/8
1/8
1/8
1/8
F
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10

Question 8



Question 9

Lesson 21

Question 10

Figure 1

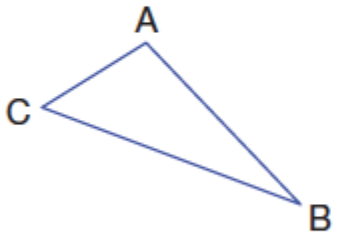


Figure 2

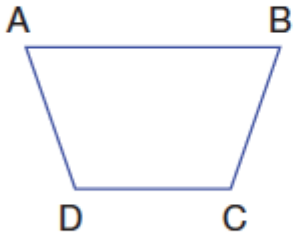


Figure 3

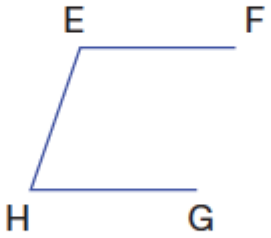


Figure 4

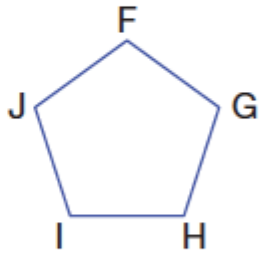
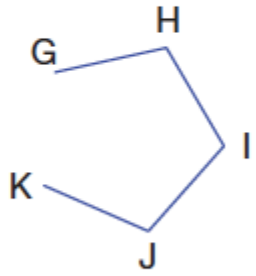


Figure 5



Lesson 21

Question 11

Terms

certain

possible

impossible

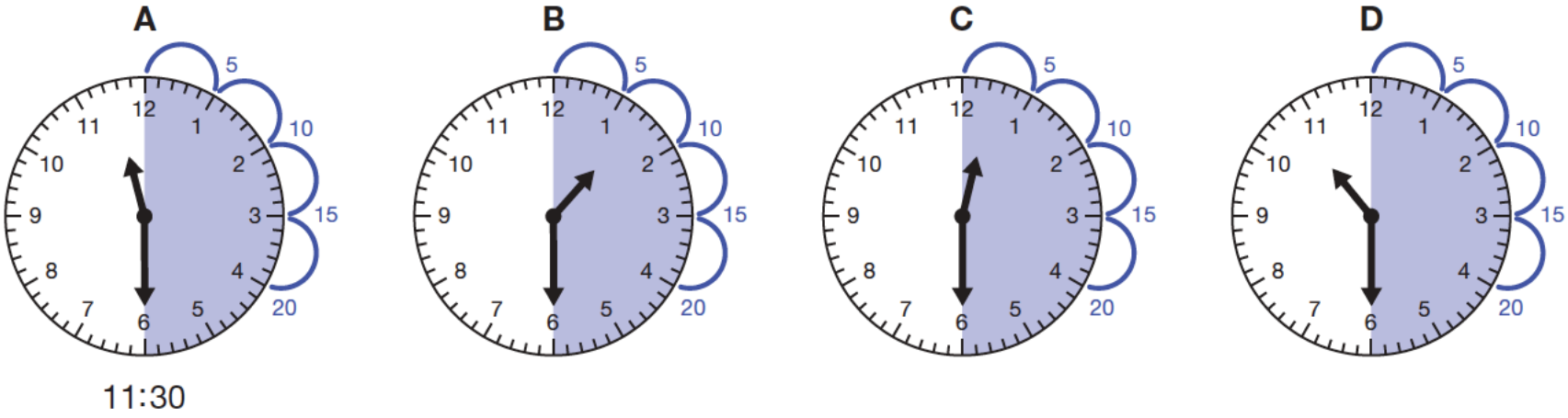
Question 12

Number in set	Value		Set value
1	$100		$100
2	$50		$100
5	$20		$100
10	$10		$100
20	$5		$100
50	$2		$100
100	$1		$100
200	50¢		$100
500	20¢		$100
1000	10¢		$100
2000	5¢		$100

Lesson 21

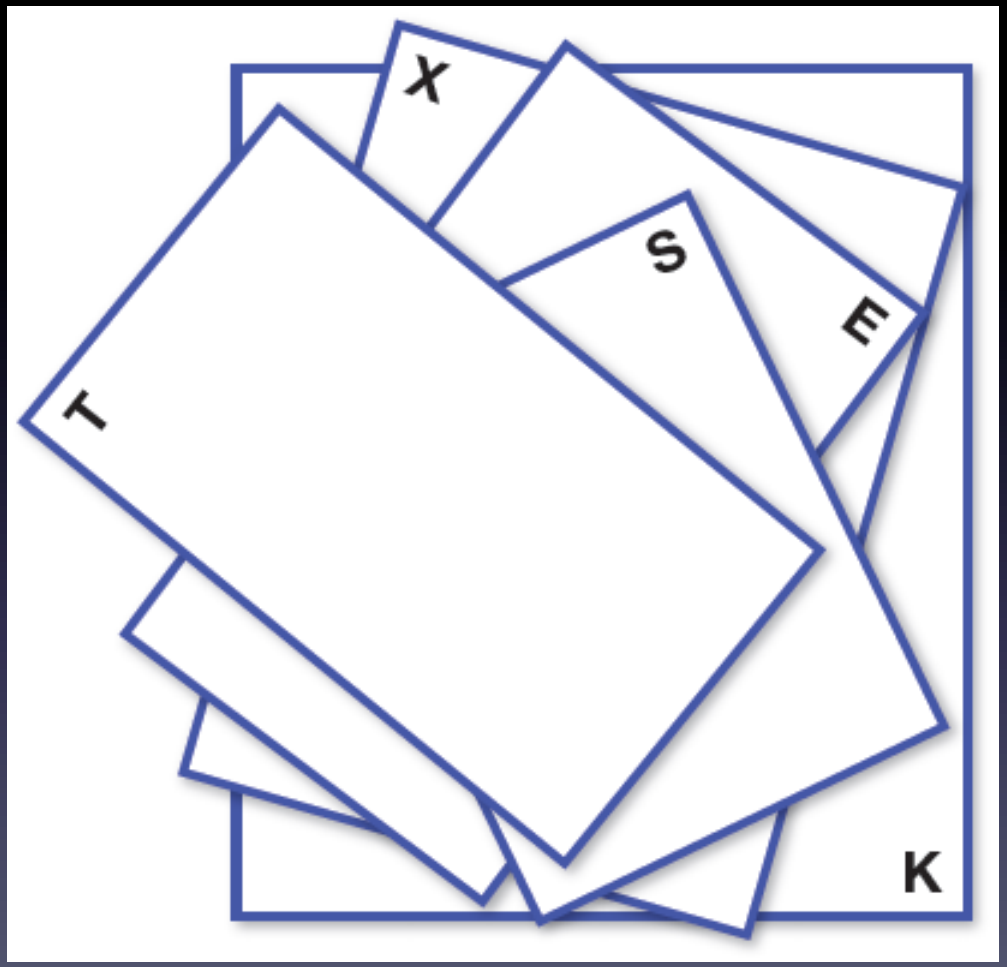
Question 13

60 minutes (min) = 1 hour (hr) = 2 half hours



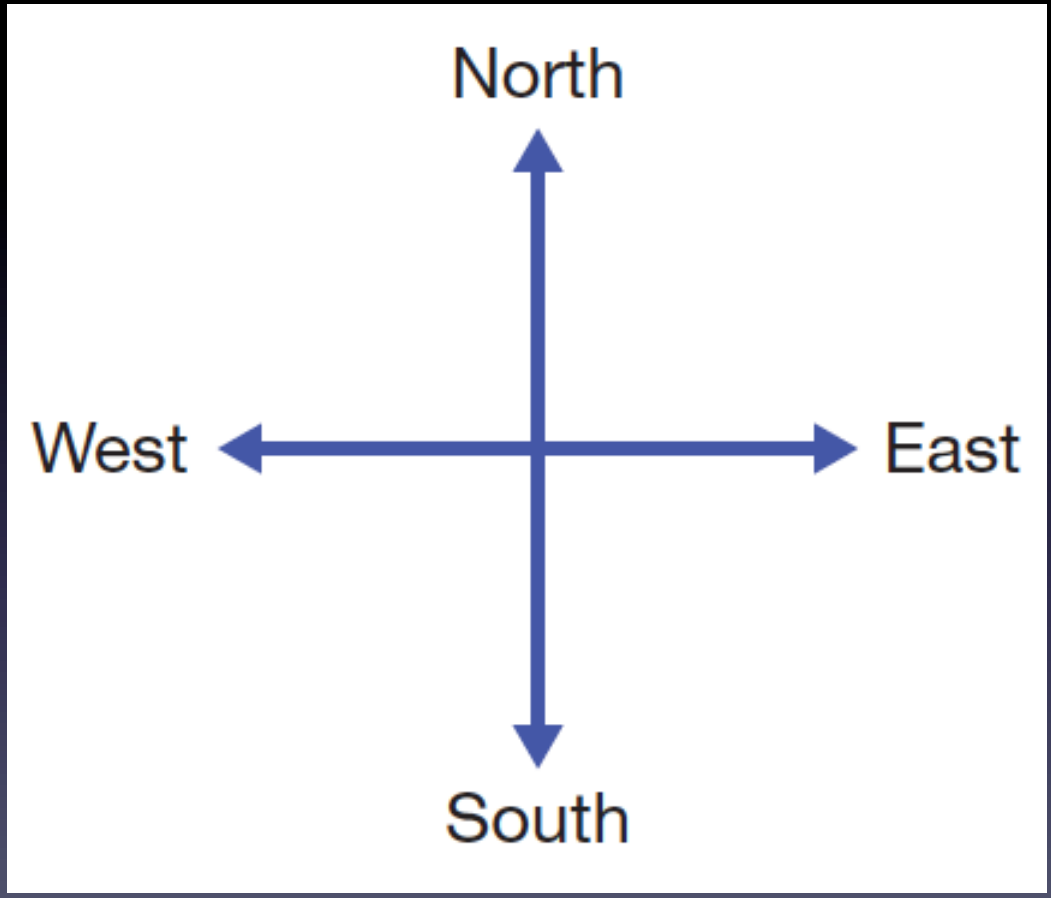
Lesson 21

Question 14



Lesson 21

Question 15



Lesson 21

Return to index

Lesson 22

Copyright 2016

Question 1

									0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110

Question 2

19	+	67	=	20	+	66
19	+	67	=	16	+	70
19	+	48	=	20	+	47
19	+	48	=	17	+	50

Question 3

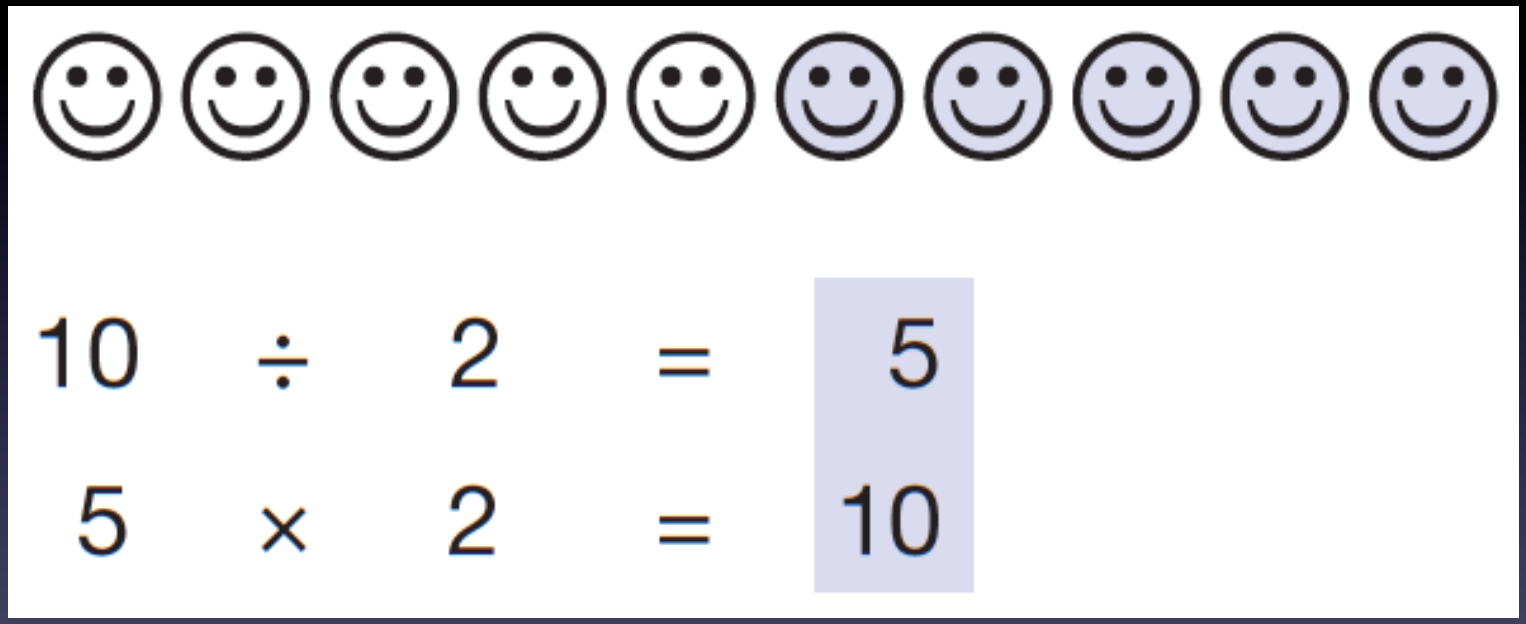
Lesson 22

Question 4

10 × 8 =	H	T	Ones
	8	**0**	

1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8

Question 5



$10 \div 2 = 5$

$5 \times 2 = 10$

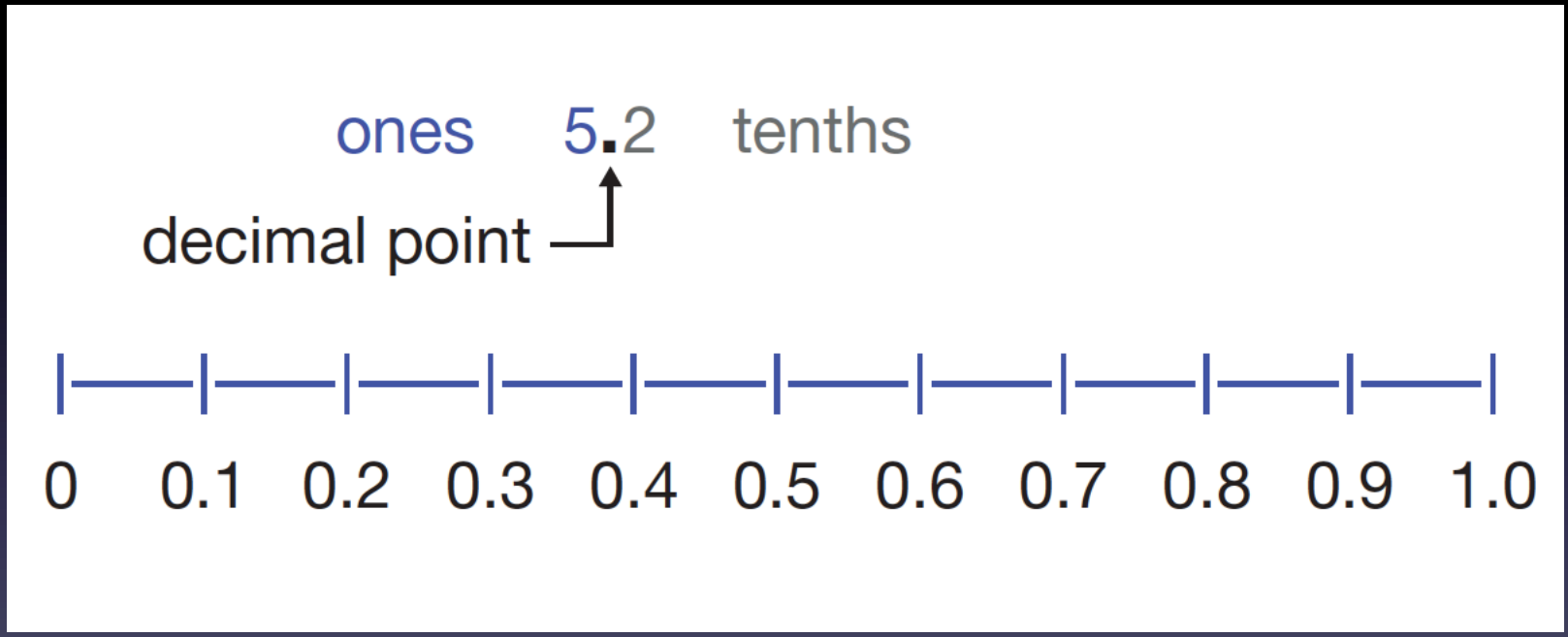
Question 6

Roman number system		
symbol	**value**	**example**
I	one	II = 1 + 1 = 2
V	five	VI = 5 + 1 = 6
X	ten	XI = 10 + 1 = 11

Question 7

Lesson 22

Question 8



Question 9

Lesson 22

Question 10

Figure 1

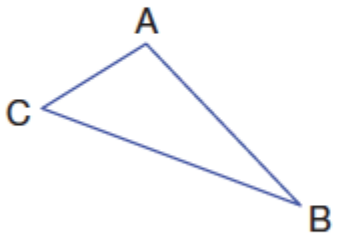


Figure 2

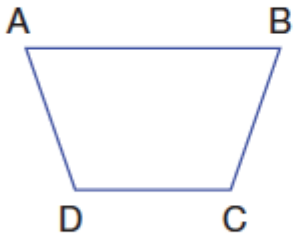


Figure 3

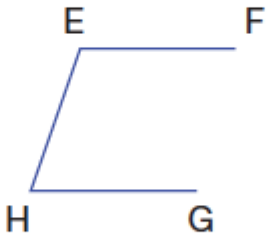


Figure 4

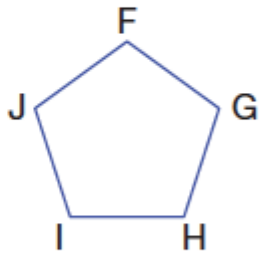
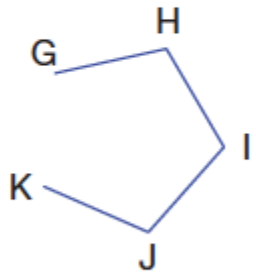


Figure 5



Lesson 22

Question 11

Terms

certain

possible

impossible

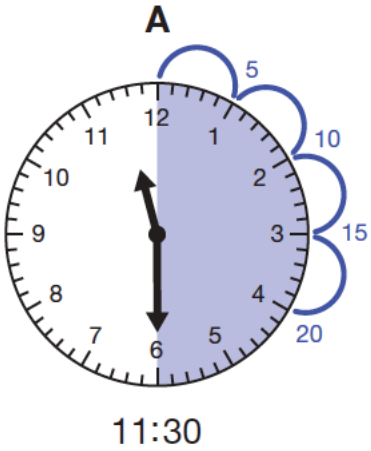
Question 12

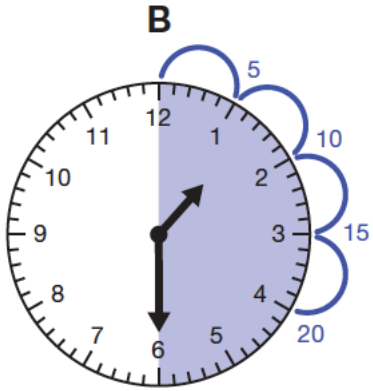
Number in set	Value		Set value
1	$100		$100
2	$50		$100
5	$20		$100
10	$10		$100
20	$5		$100
50	$2		$100
100	$1		$100
200	50¢		$100
500	20¢		$100
1000	10¢		$100
2000	5¢		$100

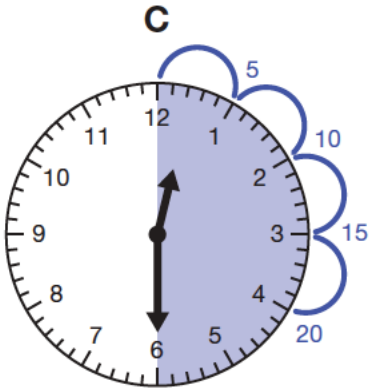
Lesson 22

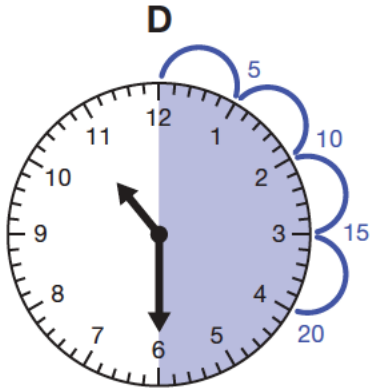
Question 13

60 minutes (min) = 1 hour (hr) = 2 half hours



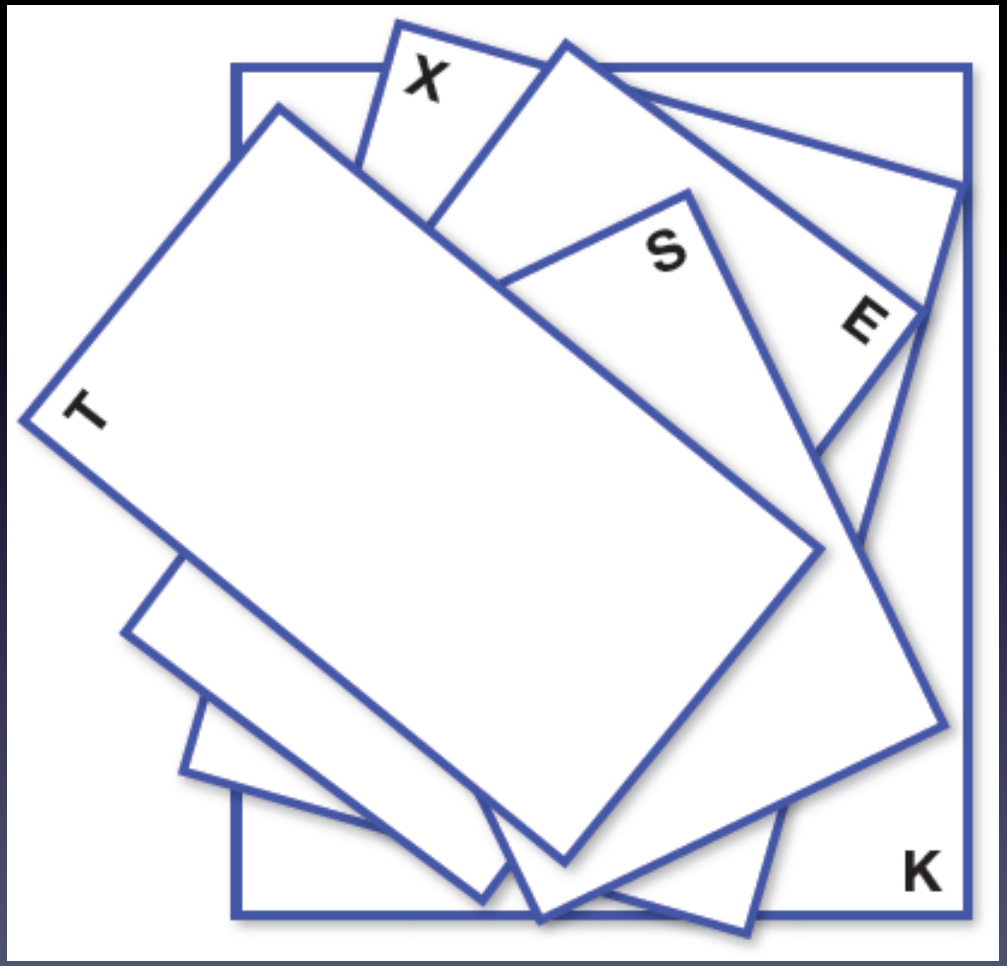






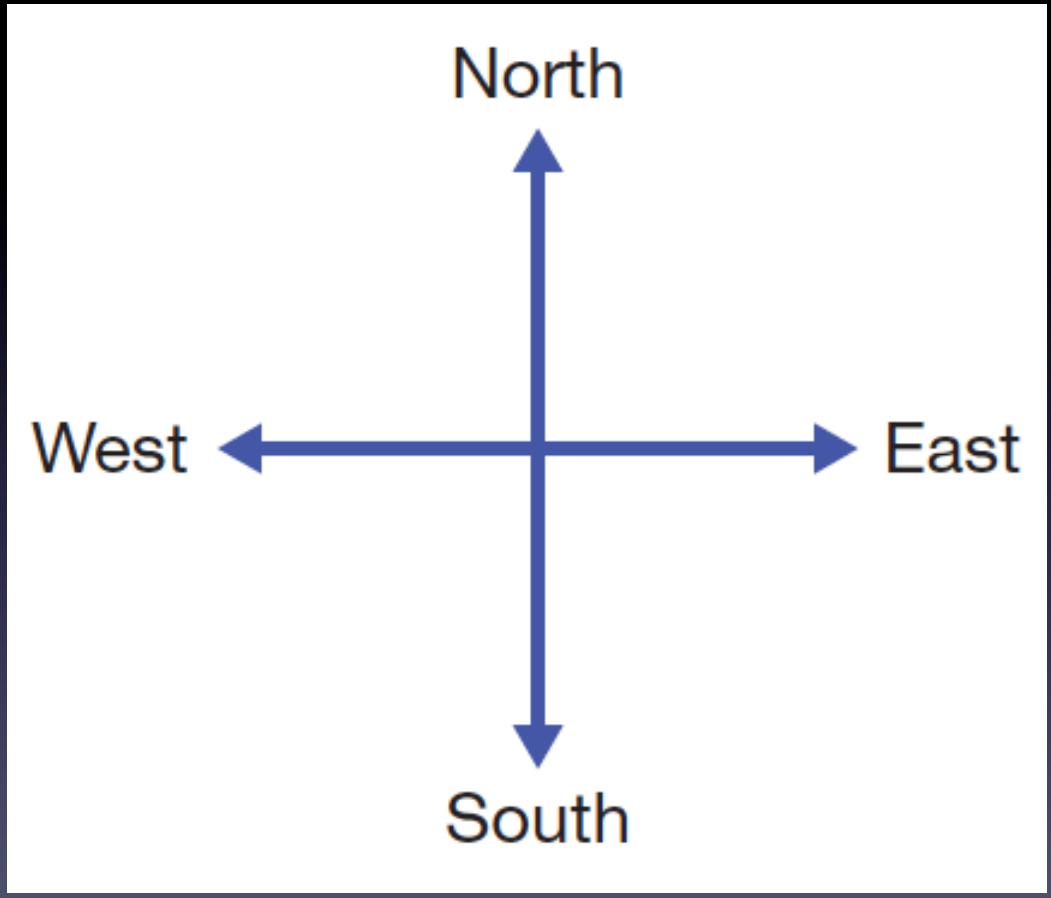
Lesson 22

Question 14



Lesson 22

Question 15



Lesson 22

Return to index

Lesson 23

Copyright 2016

Question 1

									0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110

Question 2

19	+	67	=	20	+	66
19	+	67	=	16	+	70
19	+	48	=	20	+	47
19	+	48	=	17	+	50

Question 3

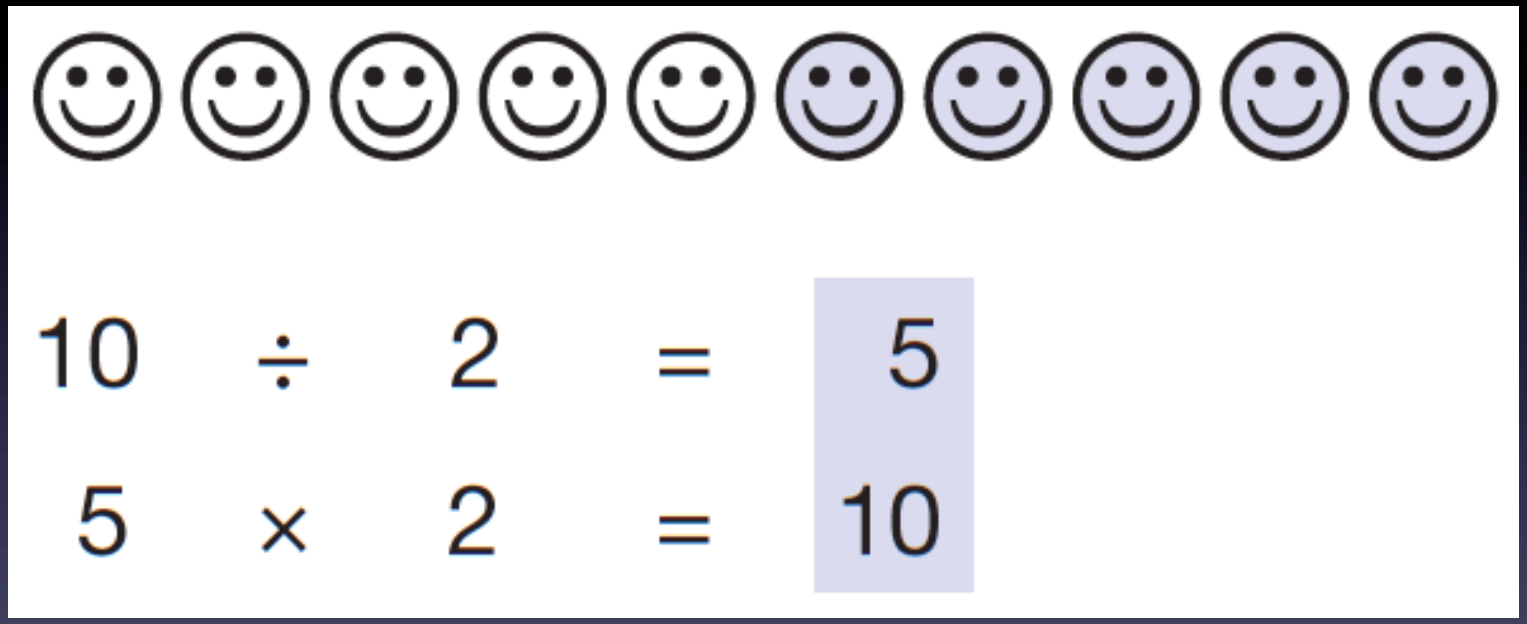
Lesson 23

Question 4

		10	×	8	=	H T Ones 8 **0**	
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8

Lesson 23

Question 5



$$10 \div 2 = 5$$

$$5 \times 2 = 10$$

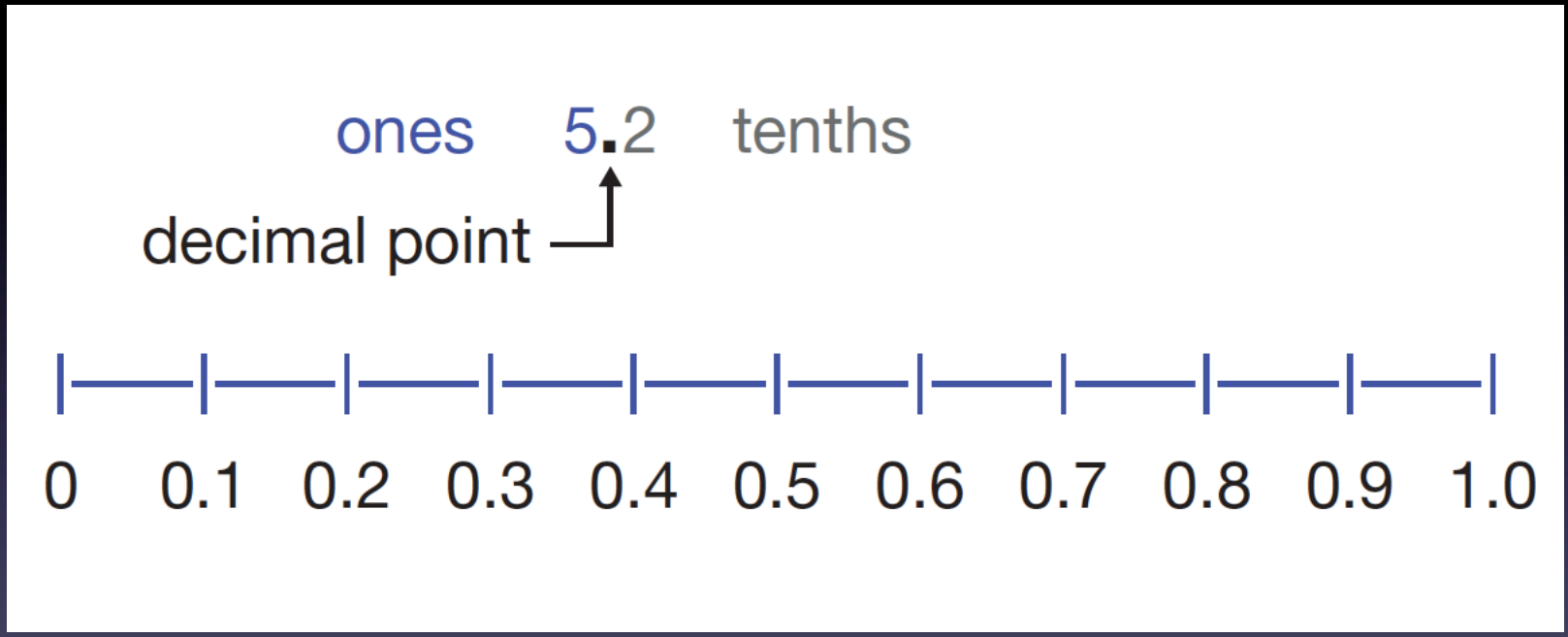
Question 6

Roman number system		
symbol	**value**	**example**
I	one	II = 1 + 1 = 2
V	five	VI = 5 + 1 = 6
X	ten	XI = 10 + 1 = 11

Question 7

A
1 whole
B
1/2
1/2
C
1/4
1/4
1/4
1/4
D
1/5
1/5
1/5
1/5
1/5
E
1/8
1/8
1/8
1/8
1/8
1/8
1/8
1/8
F
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10

Question 8



Question 9

Lesson 23

Question 10

Figure 1

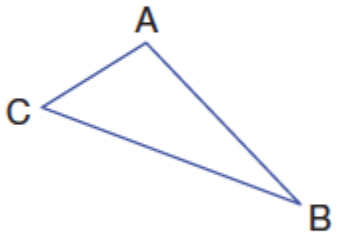


Figure 2

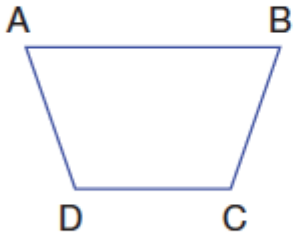


Figure 3

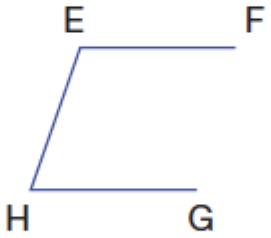


Figure 4

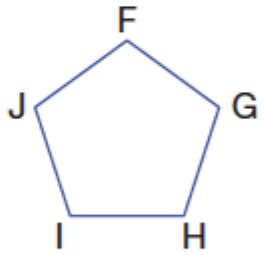
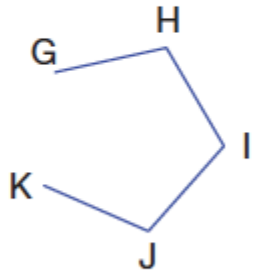


Figure 5



Lesson 23

Question 11

Terms

certain

possible

impossible

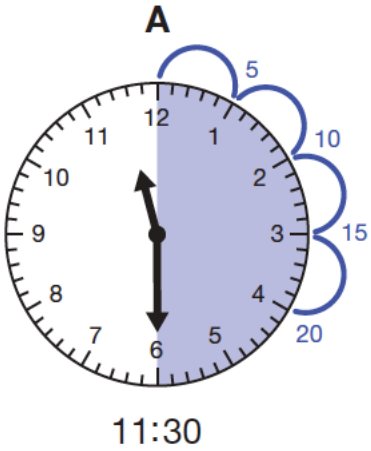
Question 12

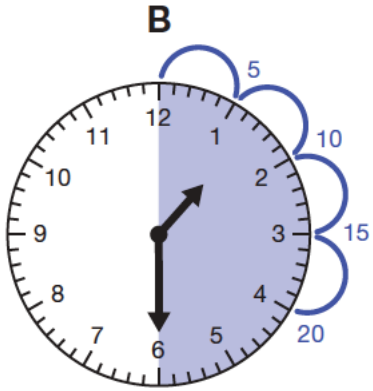
Number in set	Value		Set value
1	$100		$100
2	$50		$100
5	$20		$100
10	$10		$100
20	$5		$100
50	$2		$100
100	$1		$100
200	50¢		$100
500	20¢		$100
1000	10¢		$100
2000	5¢		$100

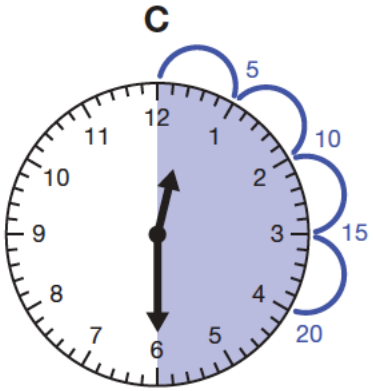
Lesson 23

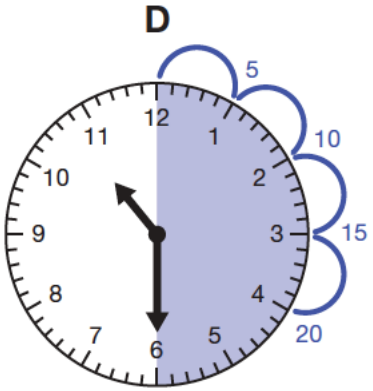
Question 13

60 minutes (min) = 1 hour (hr) = 2 half hours



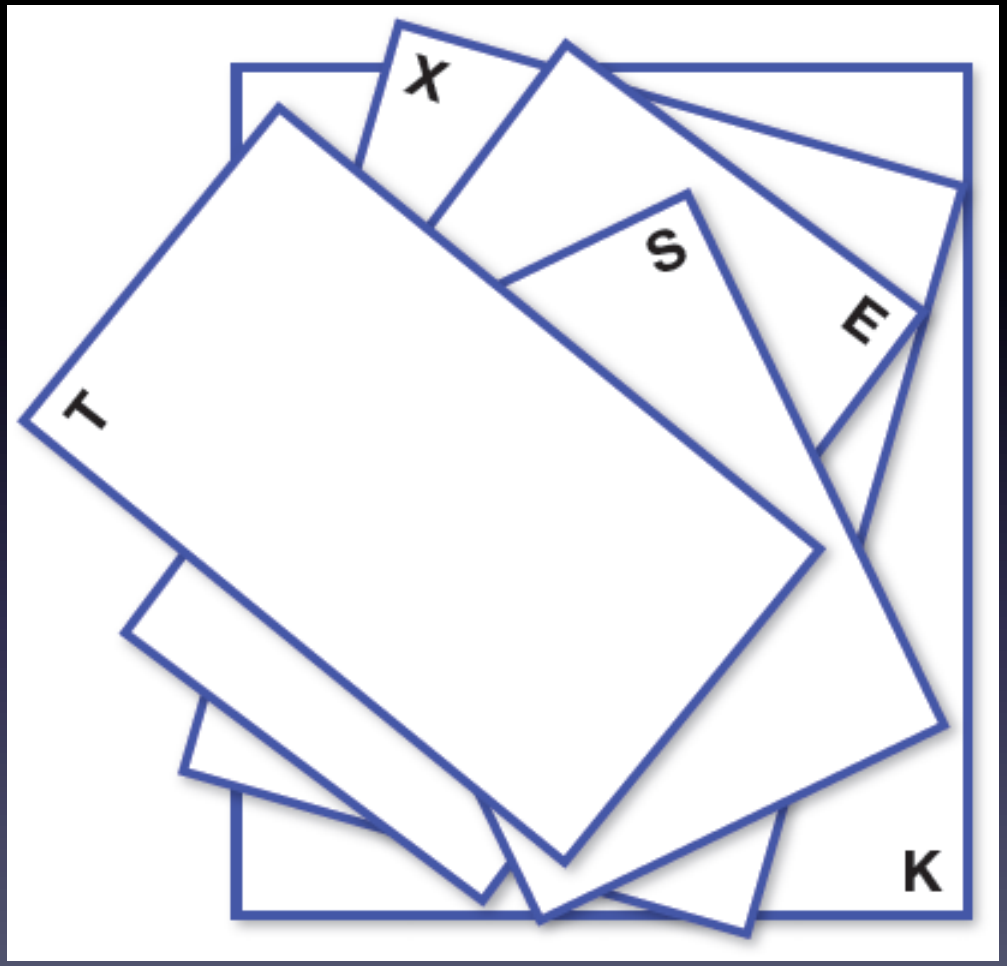






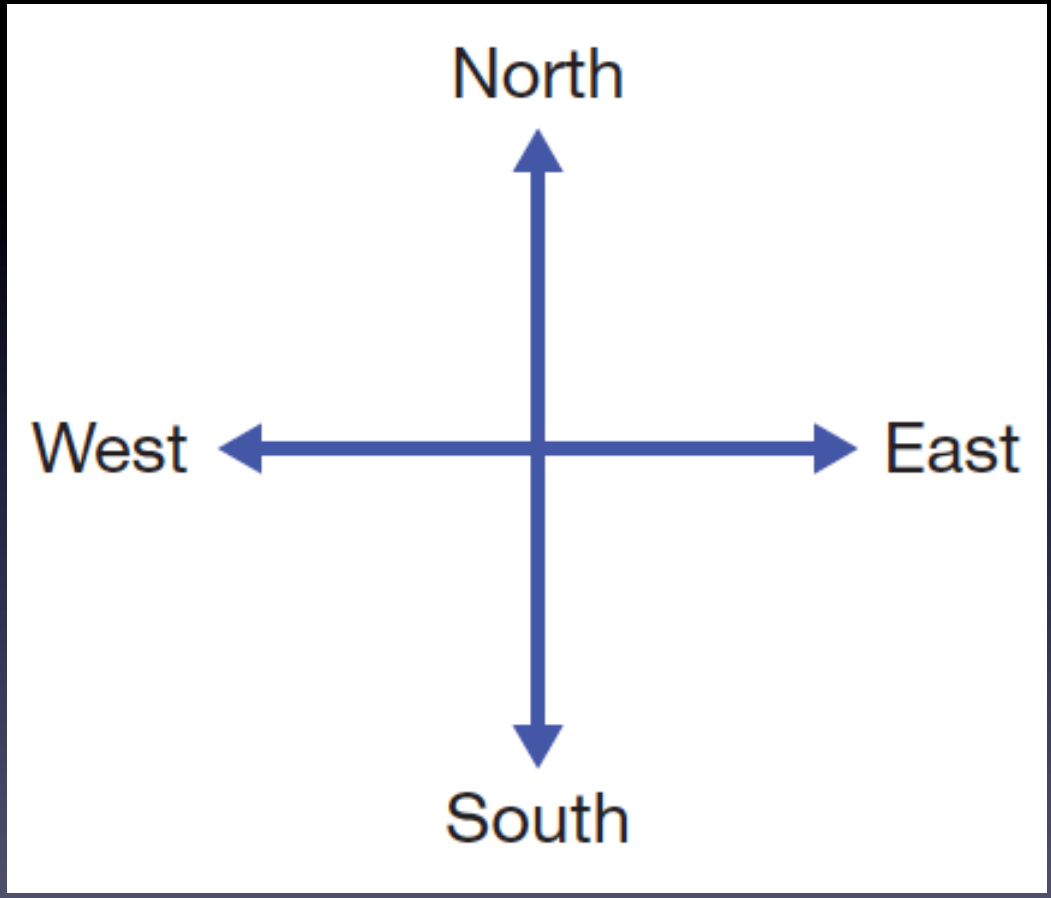
Lesson 23

Question 14



Lesson 23

Question 15



Lesson 23

Return to index

Lesson 24

Copyright 2016

Question 1

									0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110

Question 2

19	+	67	=	20	+	66
19	+	67	=	16	+	70
19	+	48	=	20	+	47
19	+	48	=	17	+	50

Question 3

Lesson 24

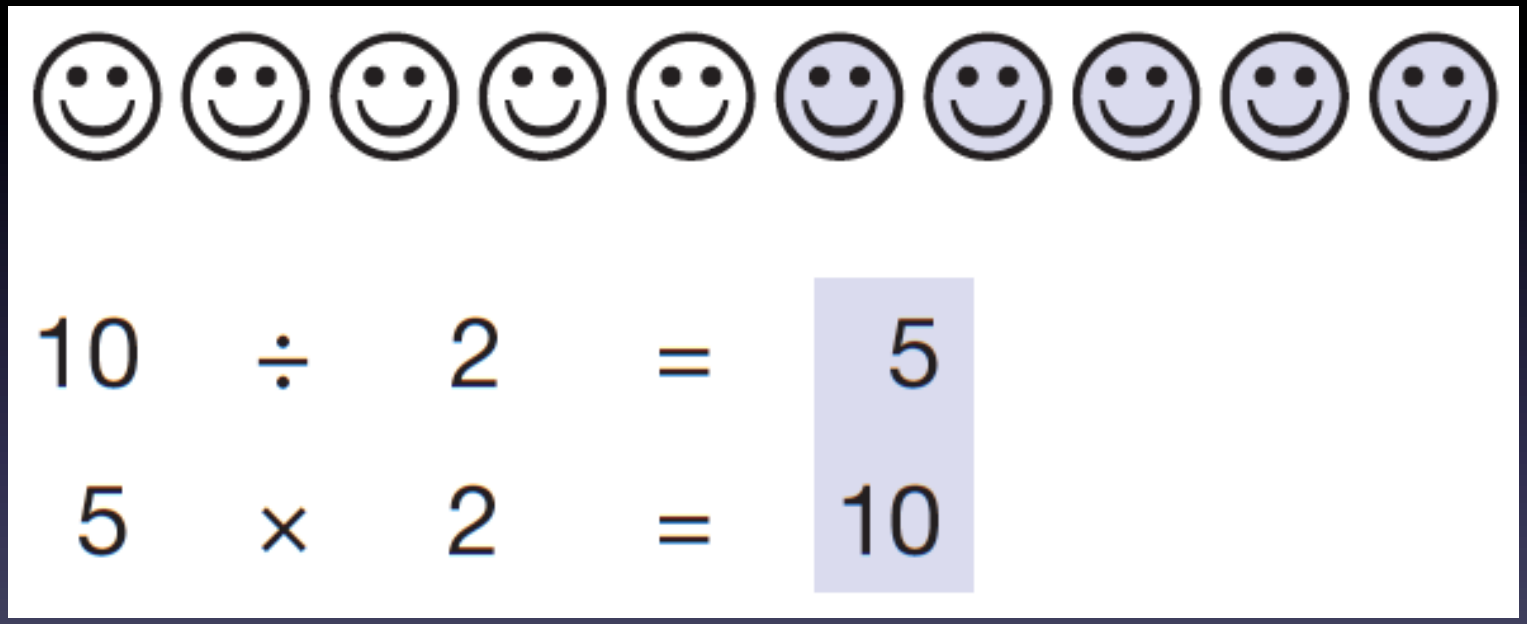
Question 4

10 × 8 =	H	T	Ones
	8	**0**	

1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8

Lesson 24

Question 5



$10 \div 2 = 5$

$5 \times 2 = 10$

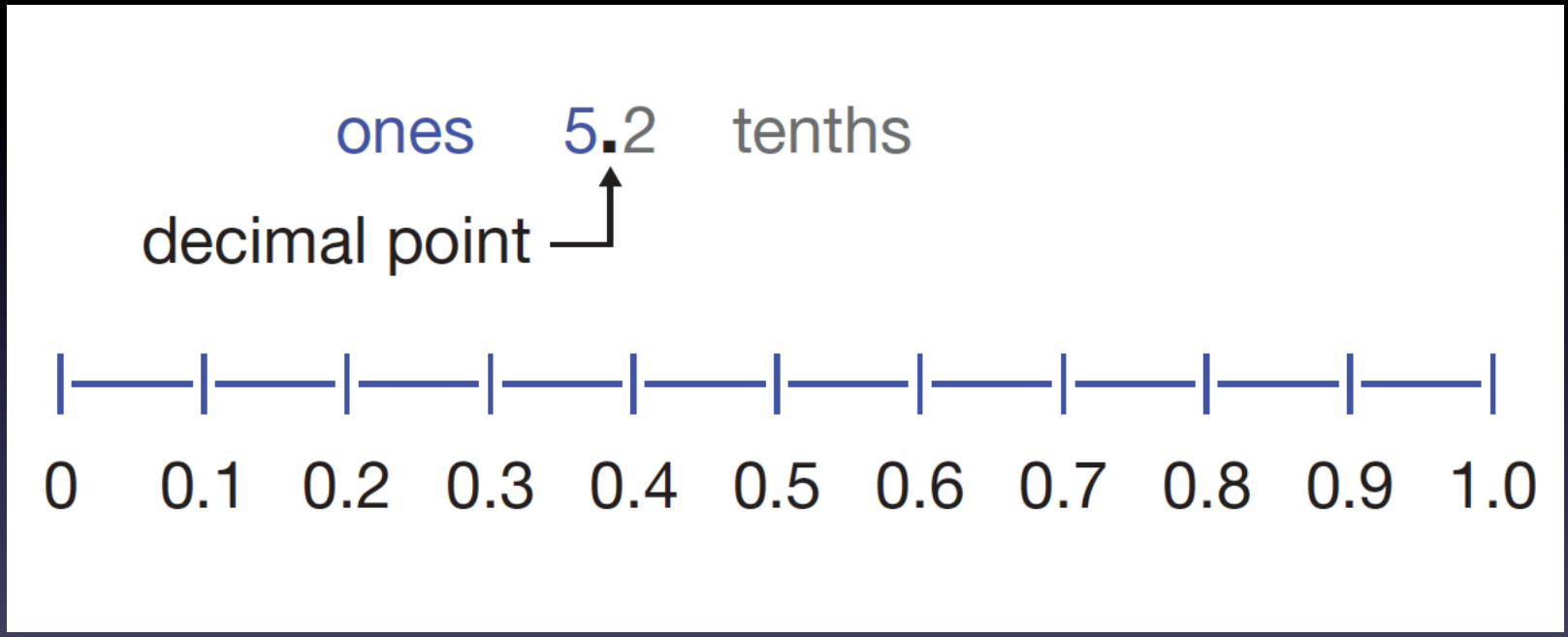
Question 6

Roman number system		
symbol	**value**	**example**
I	one	II = 1 + 1 = 2
V	five	VI = 5 + 1 = 6
X	ten	XI = 10 + 1 = 11

Question 7

A
1 whole
B
1/2
1/2
C
1/4
1/4
1/4
1/4
D
1/5
1/5
1/5
1/5
1/5
E
1/8
1/8
1/8
1/8
1/8
1/8
1/8
1/8
F
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10

Question 8



Question 9

Lesson 24

Question 10

Figure 1

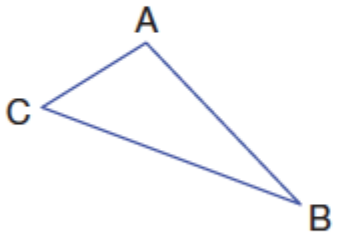


Figure 2

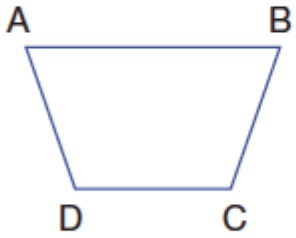


Figure 3

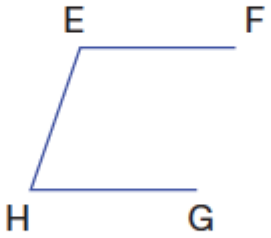


Figure 4

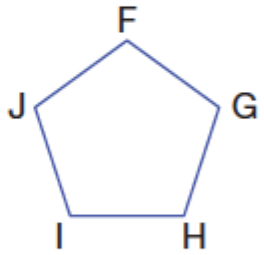
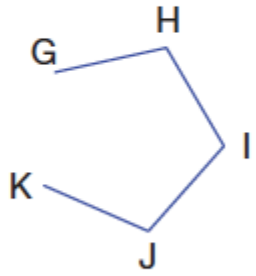
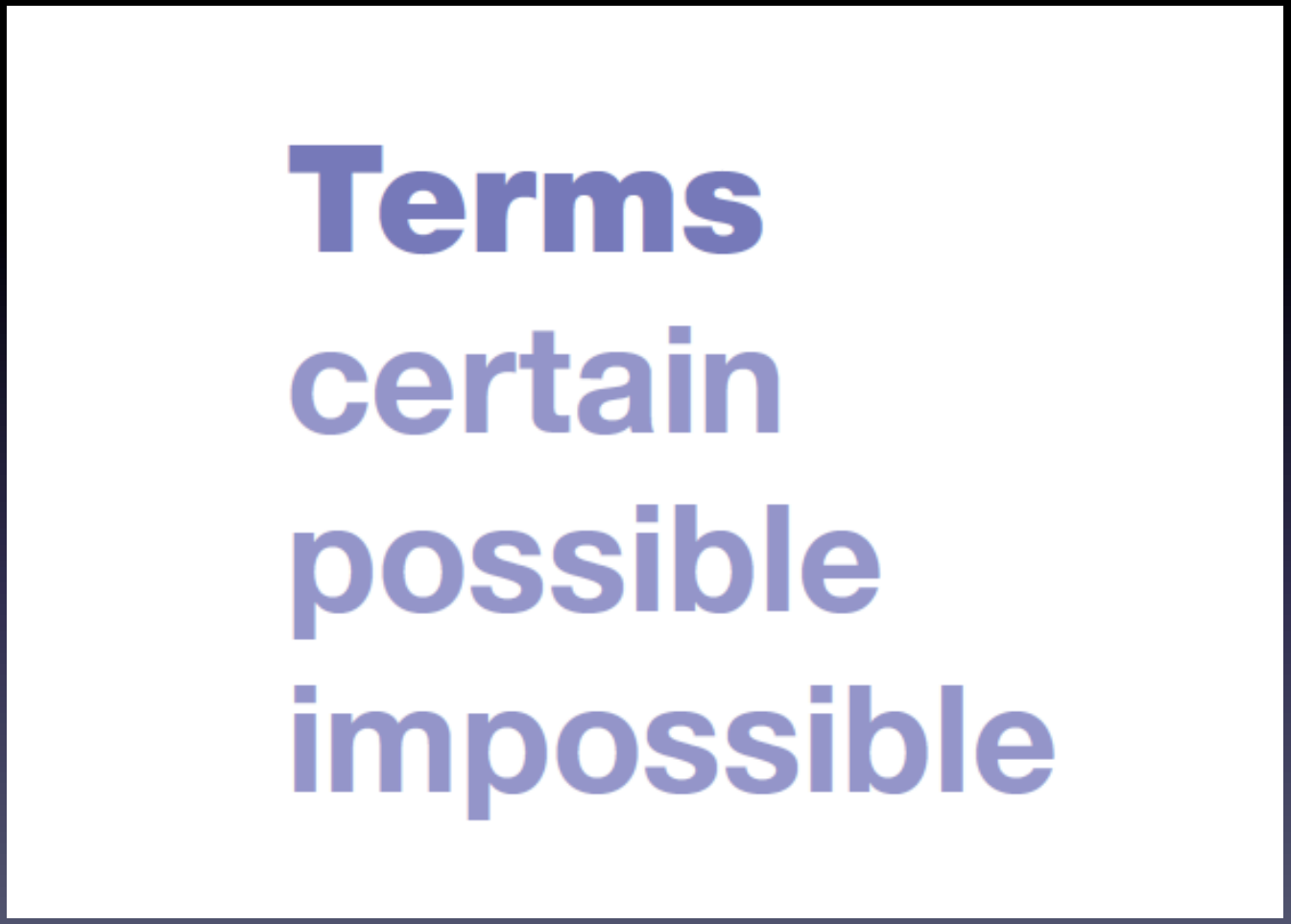


Figure 5



Lesson 24

Question 11



Lesson 24

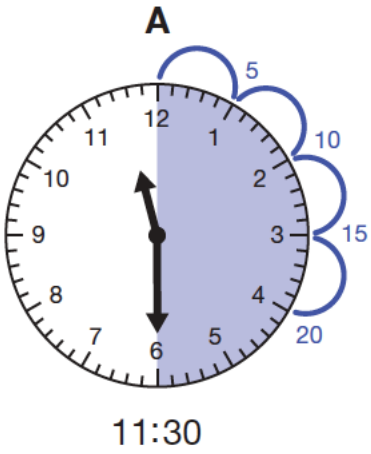
Question 12

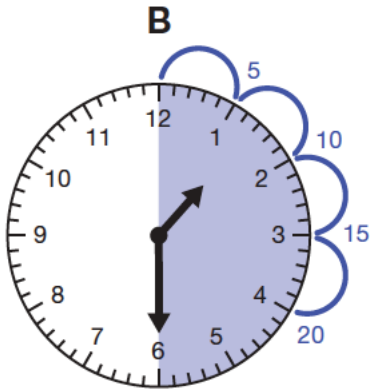
Number in set	Value		Set value
1	$100		$100
2	$50		$100
5	$20		$100
10	$10		$100
20	$5		$100
50	$2		$100
100	$1		$100
200	50¢		$100
500	20¢		$100
1000	10¢		$100
2000	5¢		$100

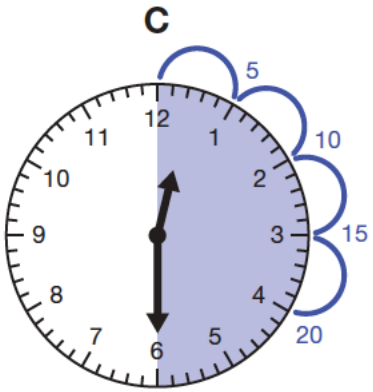
Lesson 24

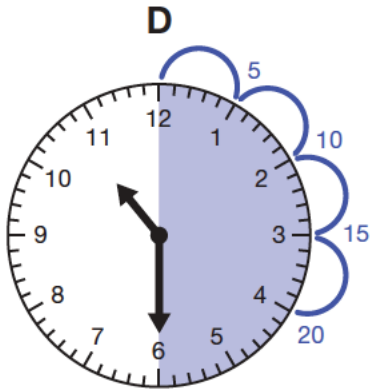
Question 13

60 minutes (min) = 1 hour (hr) = 2 half hours



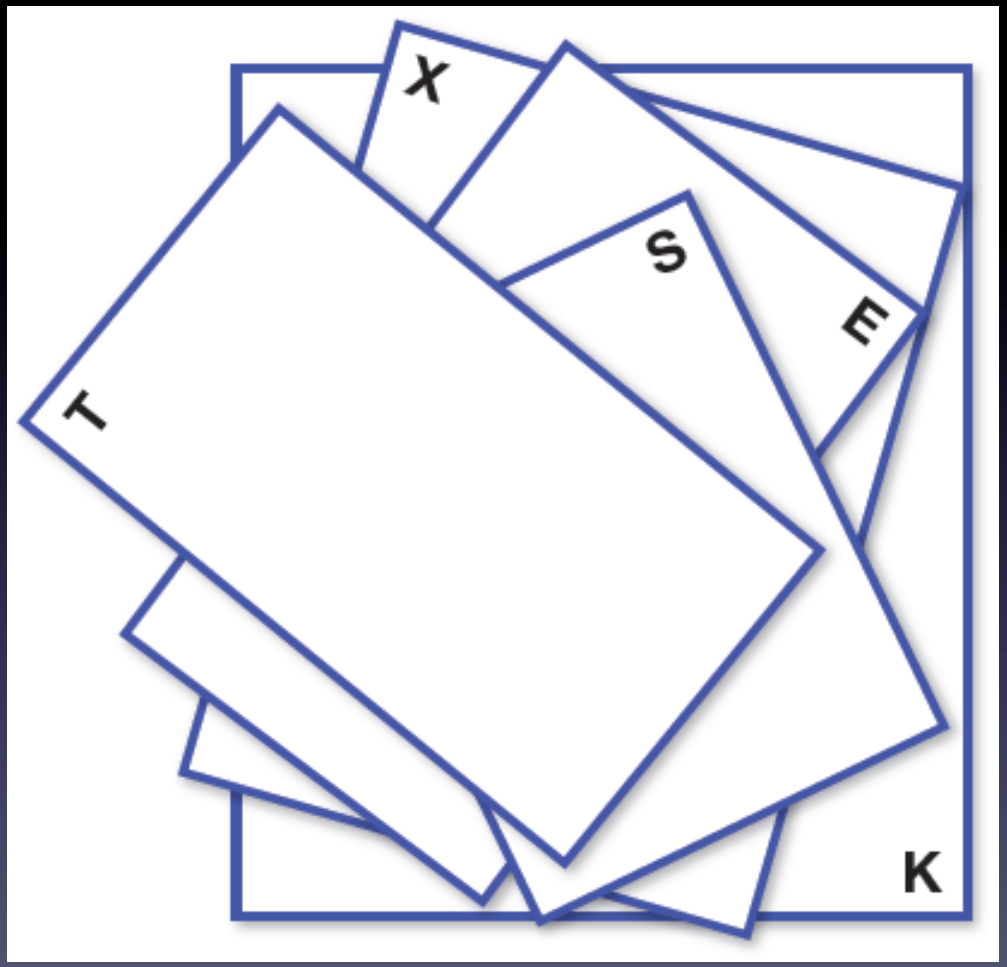






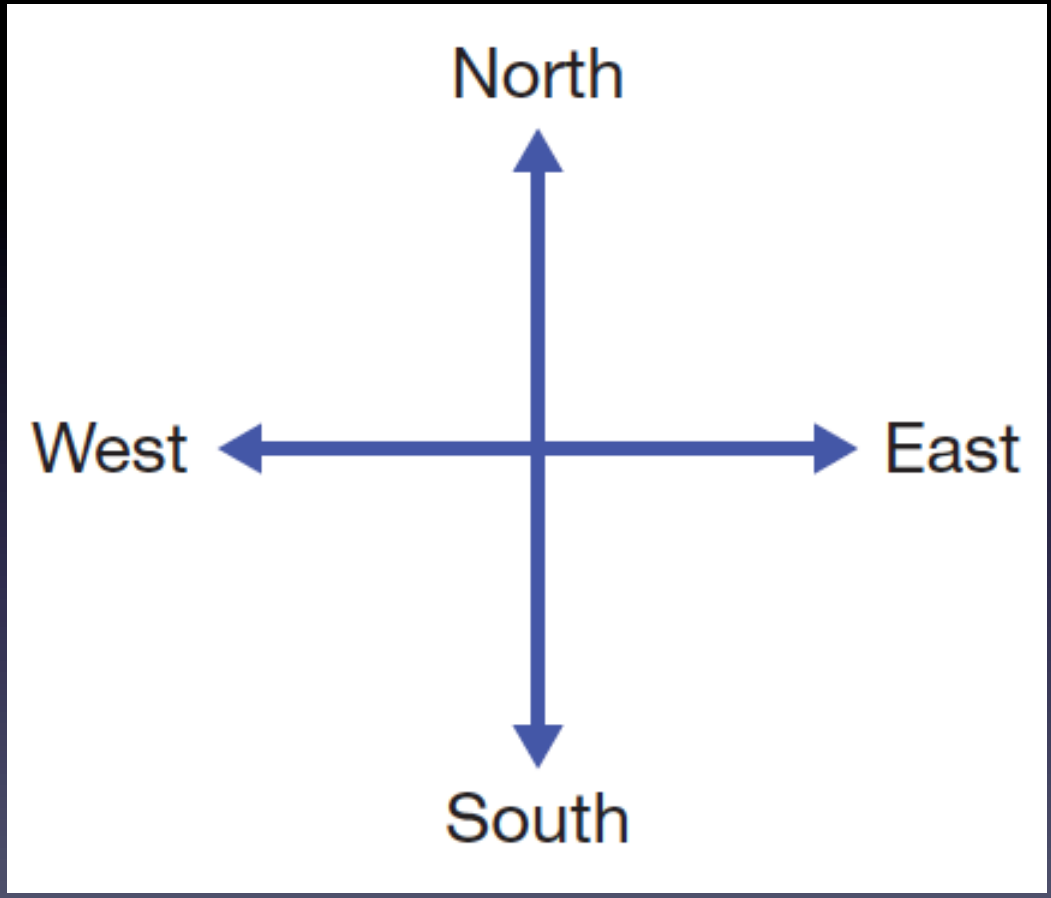
Lesson 24

Question 14



Lesson 24

Question 15



Return to index

Lesson 25

Copyright 2016

Question 1

									0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110

Question 2

19	+	67	=	20	+	66
19	+	67	=	16	+	70
19	+	48	=	20	+	47
19	+	48	=	17	+	50

Question 3

Lesson 25

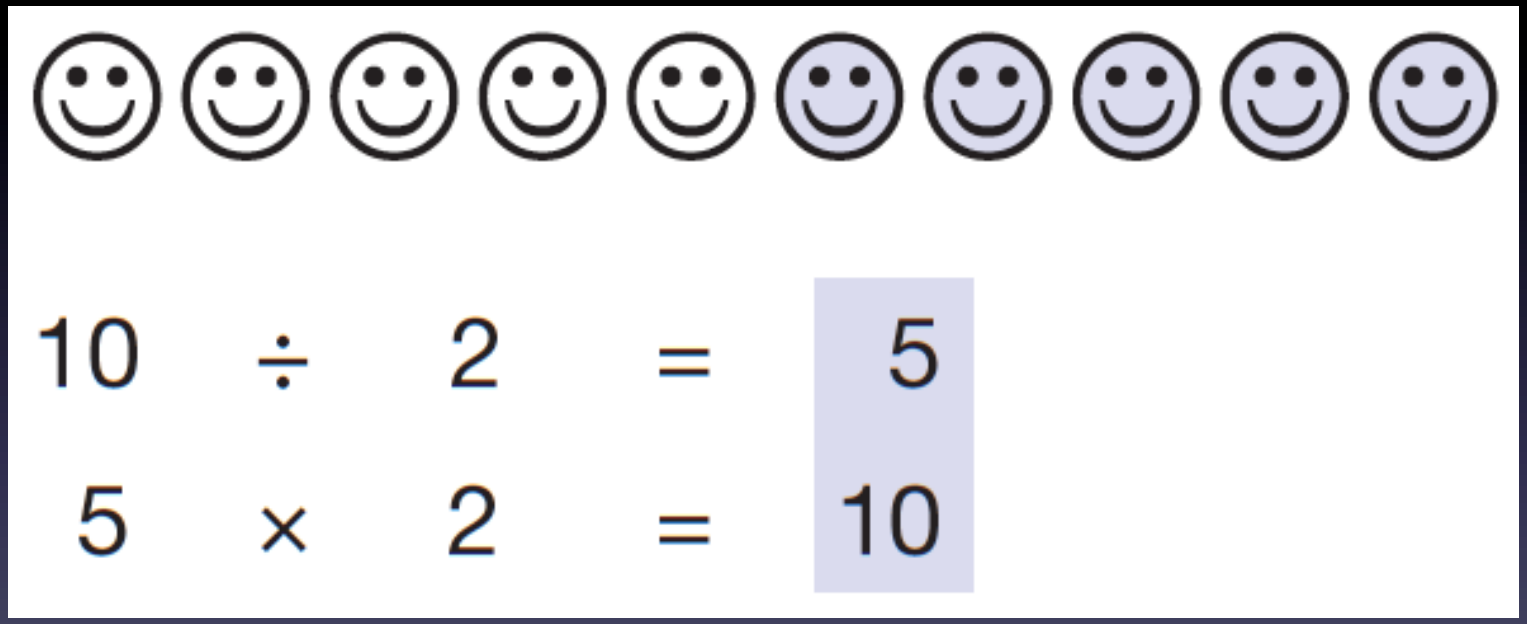
Question 4

10 × 8 =	H	T	Ones
	8	**0**	

1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8

Lesson 25

Question 5



$10 \div 2 = 5$

$5 \times 2 = 10$

Lesson 25

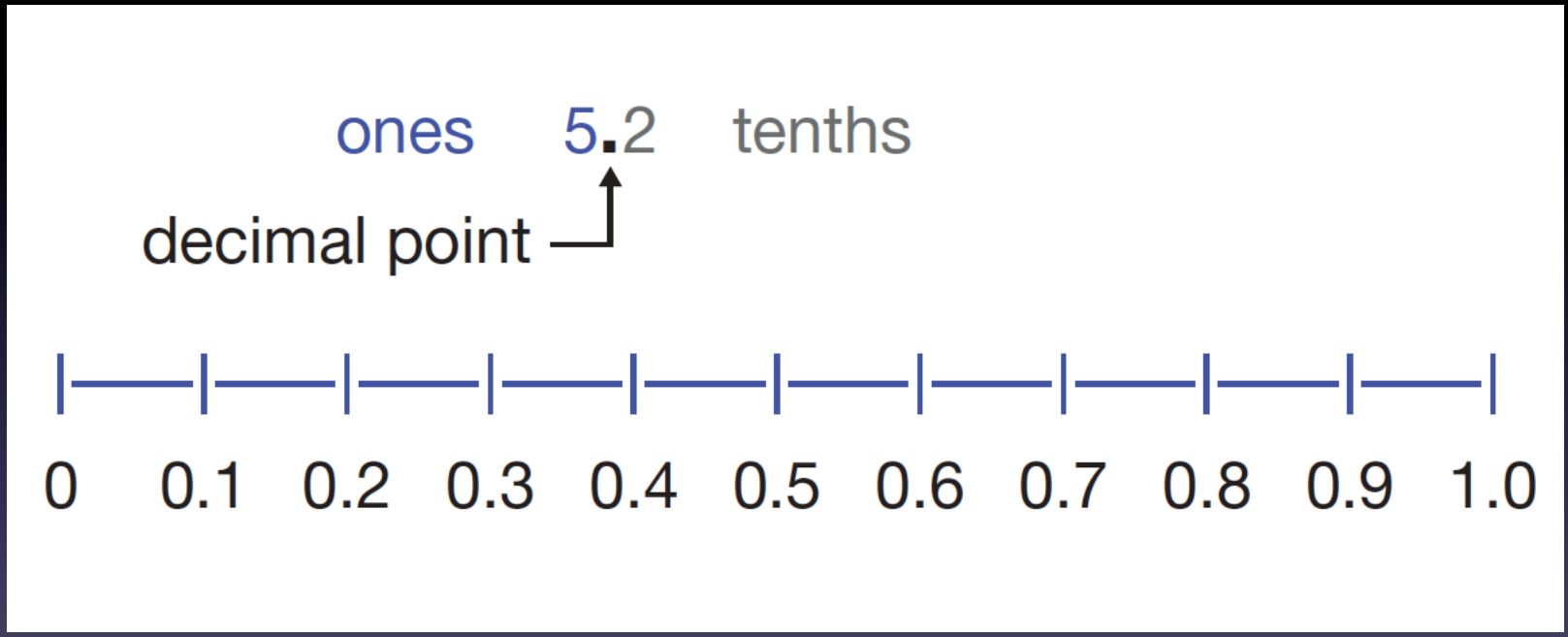
Question 6

Roman number system		
symbol	**value**	**example**
I	one	II = 1 + 1 = 2
V	five	VI = 5 + 1 = 6
X	ten	XI = 10 + 1 = 11

Question 7

Lesson 25

Question 8



Question 9

Lesson 25

Question 10

Figure 1

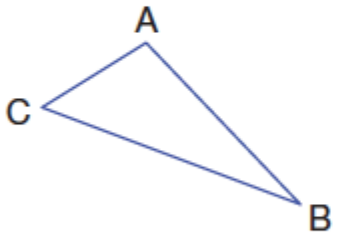


Figure 2

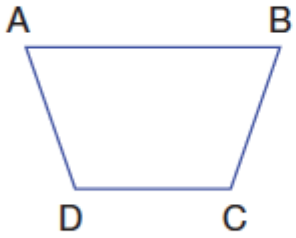


Figure 3

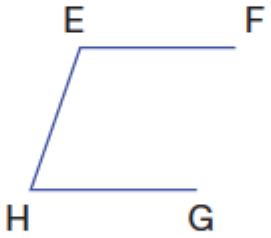


Figure 4

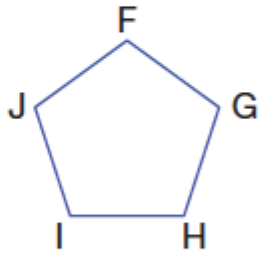
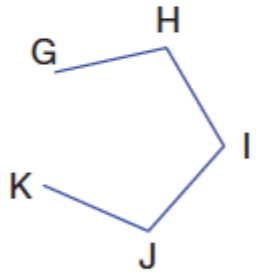


Figure 5



Lesson 25

Question 11

Terms

certain

possible

impossible

Question 12

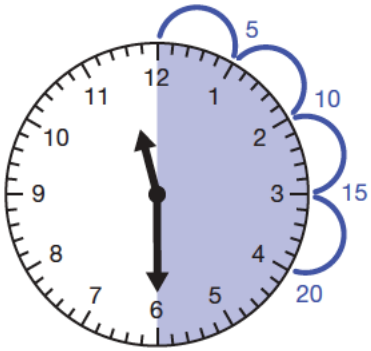
Number in set	Value		Set value
1	$100		$100
2	$50		$100
5	$20		$100
10	$10		$100
20	$5		$100
50	$2		$100
100	$1		$100
200	50¢		$100
500	20¢		$100
1000	10¢		$100
2000	5¢		$100

Lesson 25

Question 13

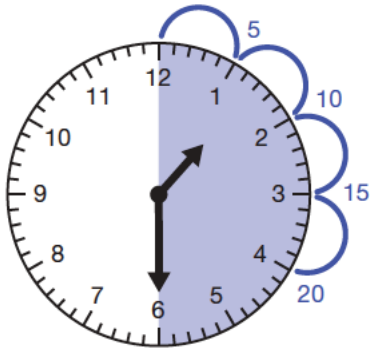
60 minutes (min) = 1 hour (hr) = 2 half hours

A

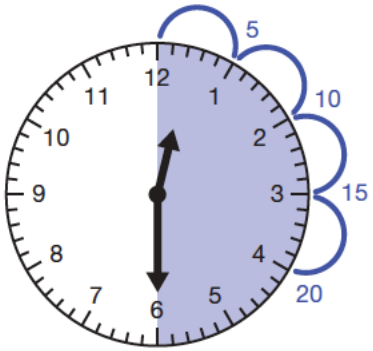


11:30

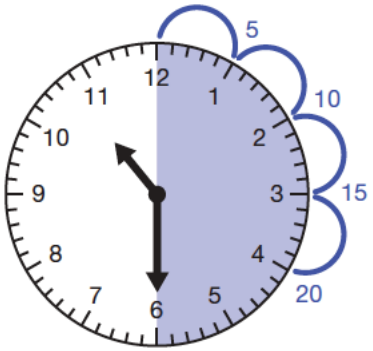
B



C

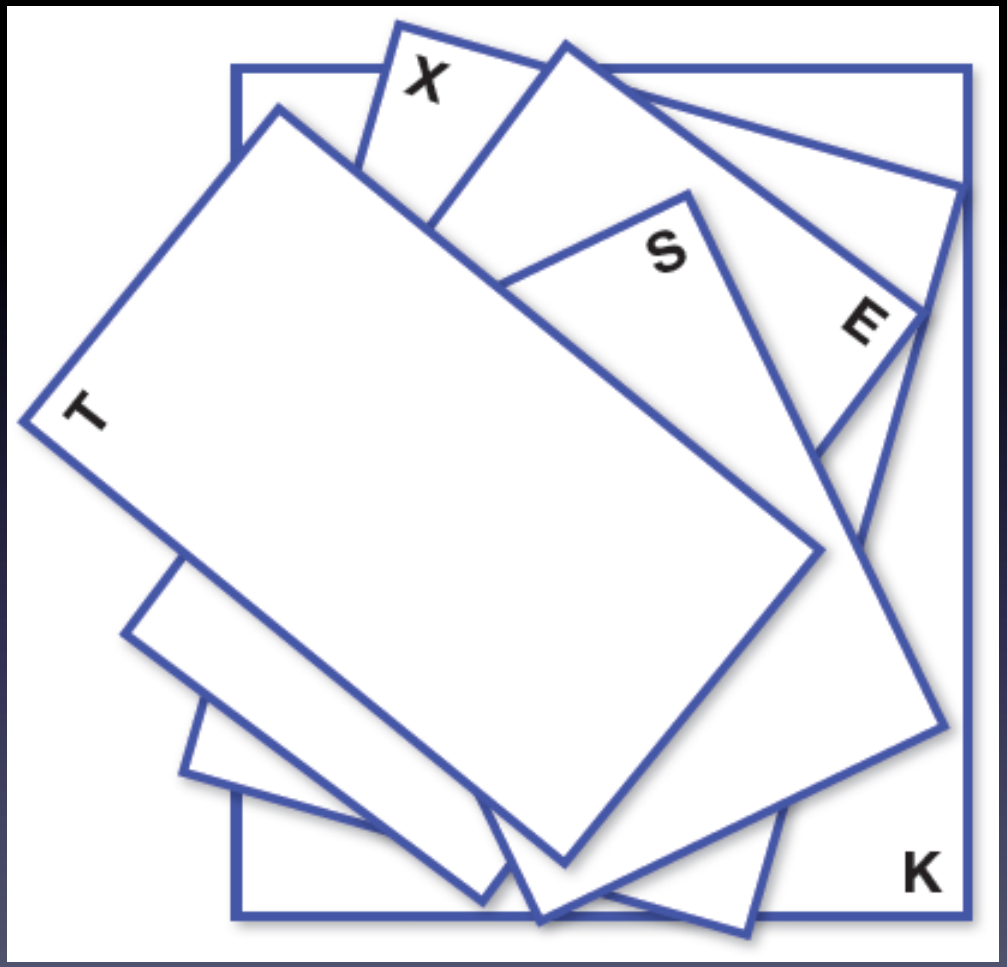


D



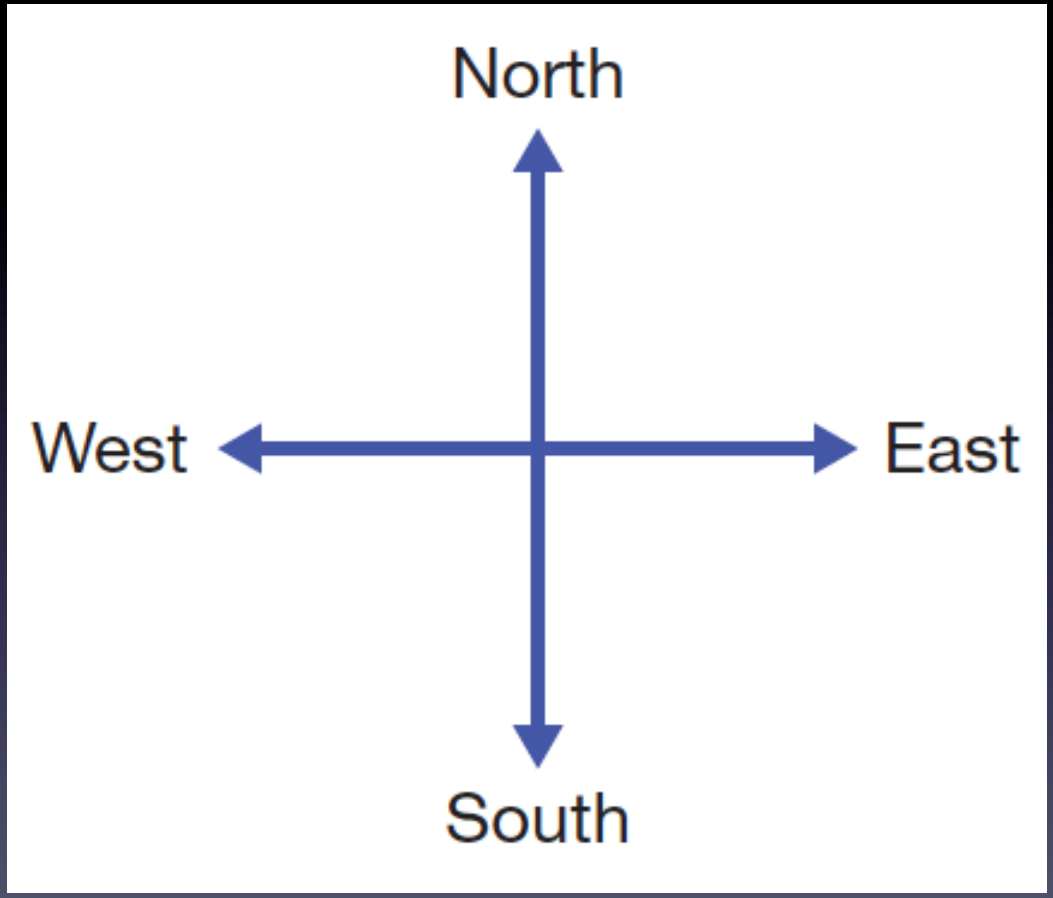
Lesson 25

Question 14



Lesson 25

Question 15



Complete ROUND TASK on next page

Lesson 26

Copyright 2016

Question 1

									0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110

Question 2

19	+	67	=	20	+	66
19	+	67	=	16	+	70
19	+	48	=	20	+	47
19	+	48	=	17	+	50

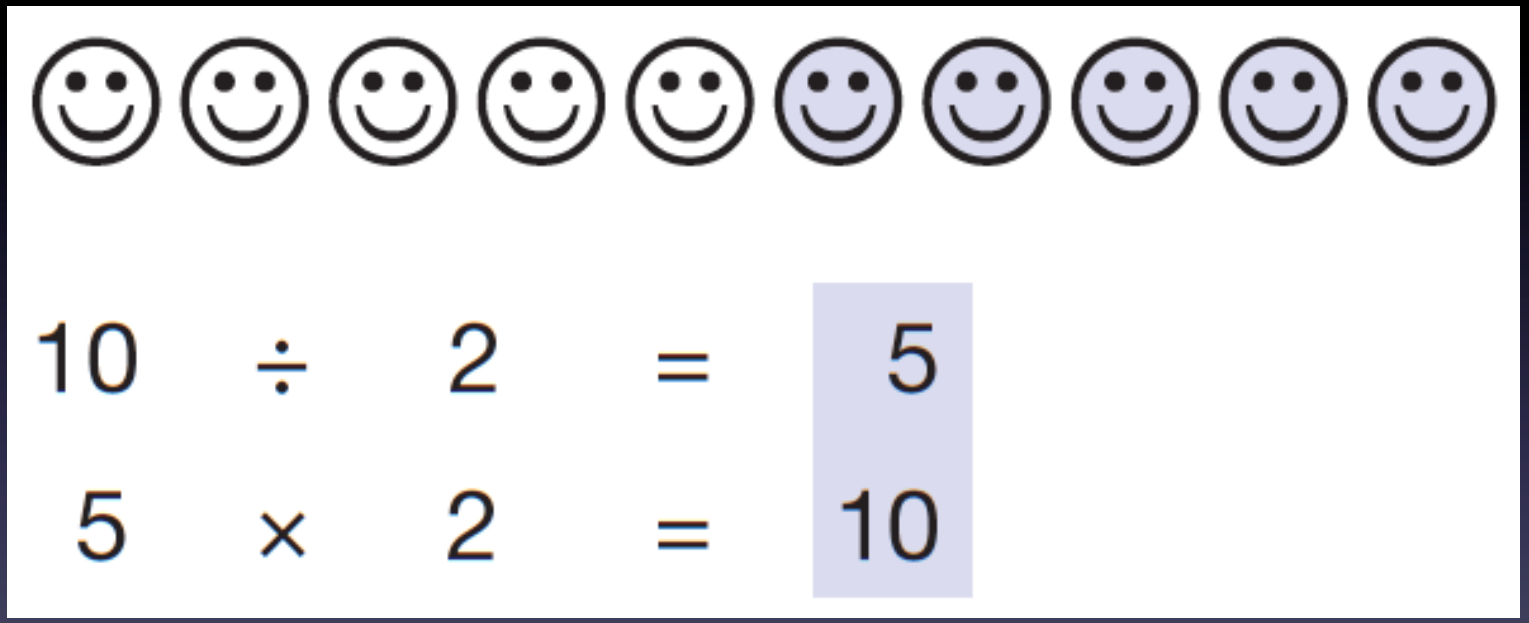
Question 3

Lesson 26

Question 4

				product		
88	×	5	=	?		
88	×	10	=	880	½	440

Question 5



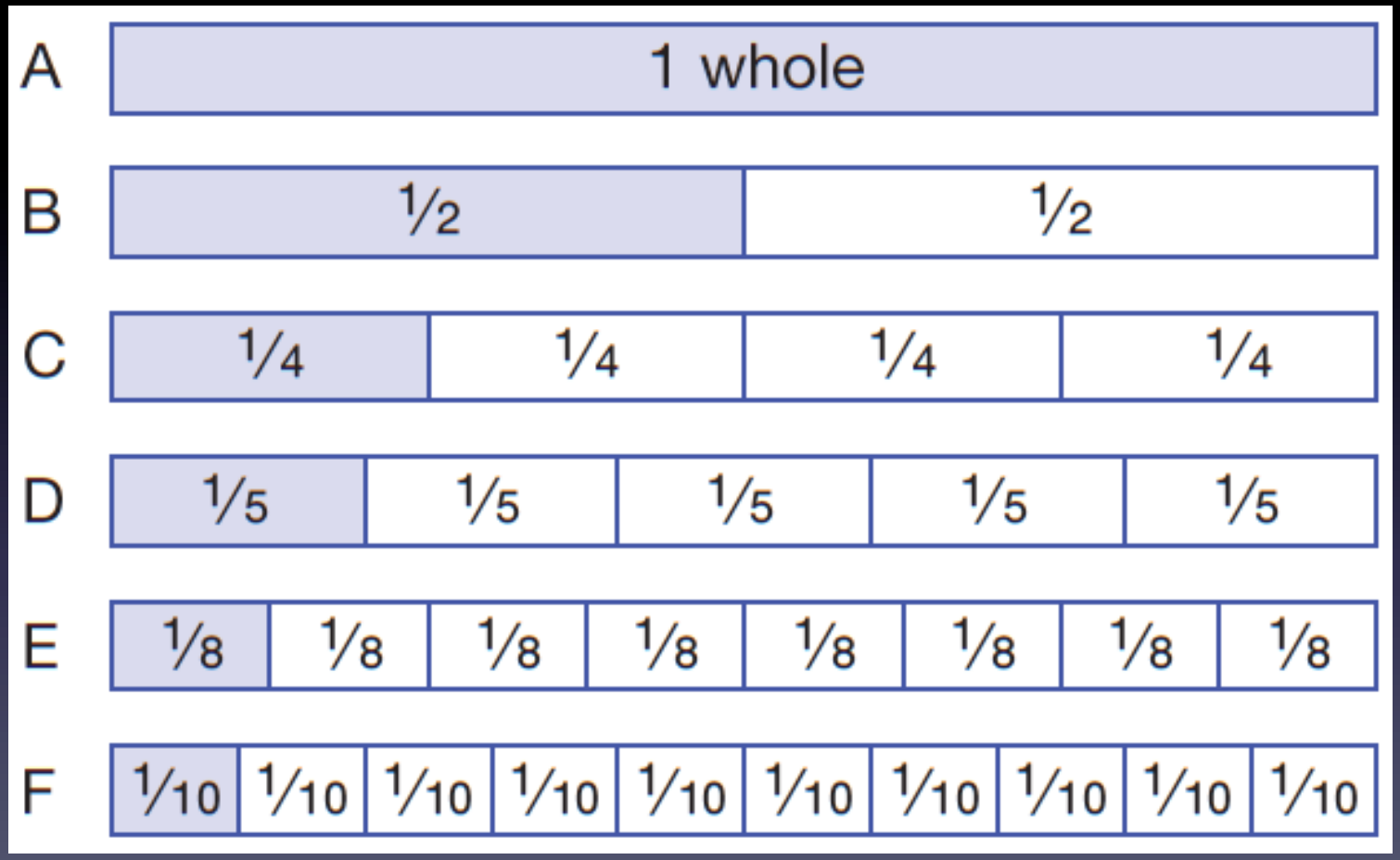
$$10 \div 2 = 5$$

$$5 \times 2 = 10$$

Question 6

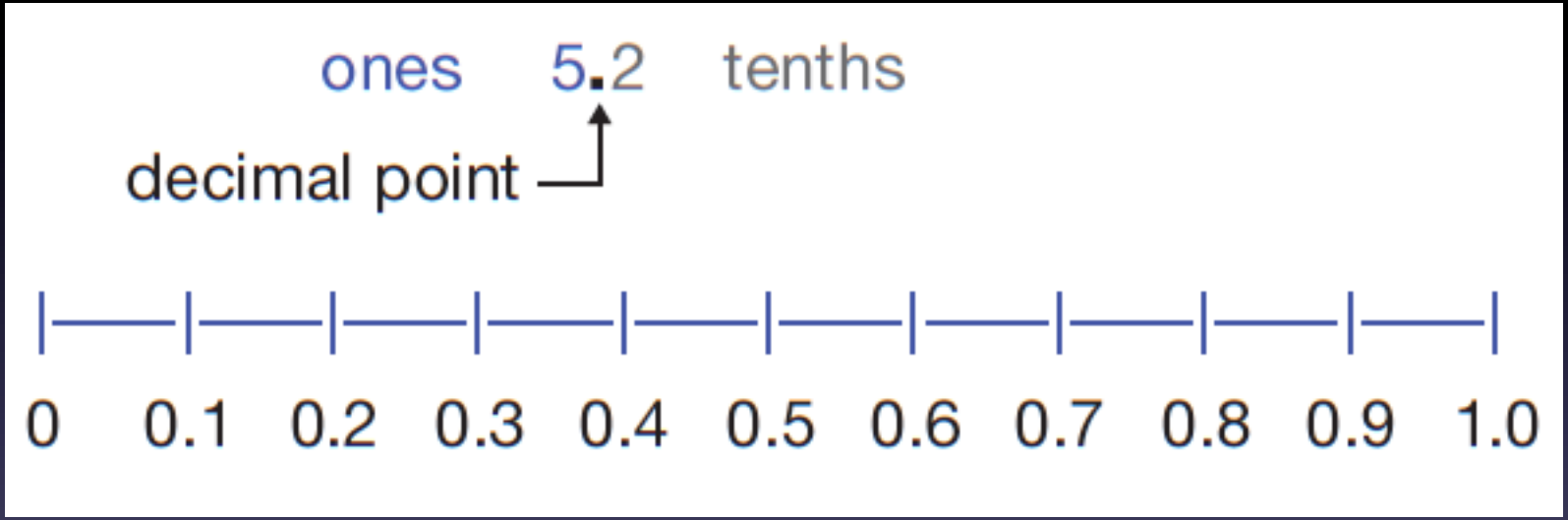
Roman number system			
symbol	**value**	**example**	
I	one	II = 1 + 1 = 2	
V	five	IV = 5 – 1 = 4	
X	ten	IX = 10 – 1 = 9	XIV = 14
L	fifty	LV = 50 + 5 = 55	

Question 7



Lesson 26

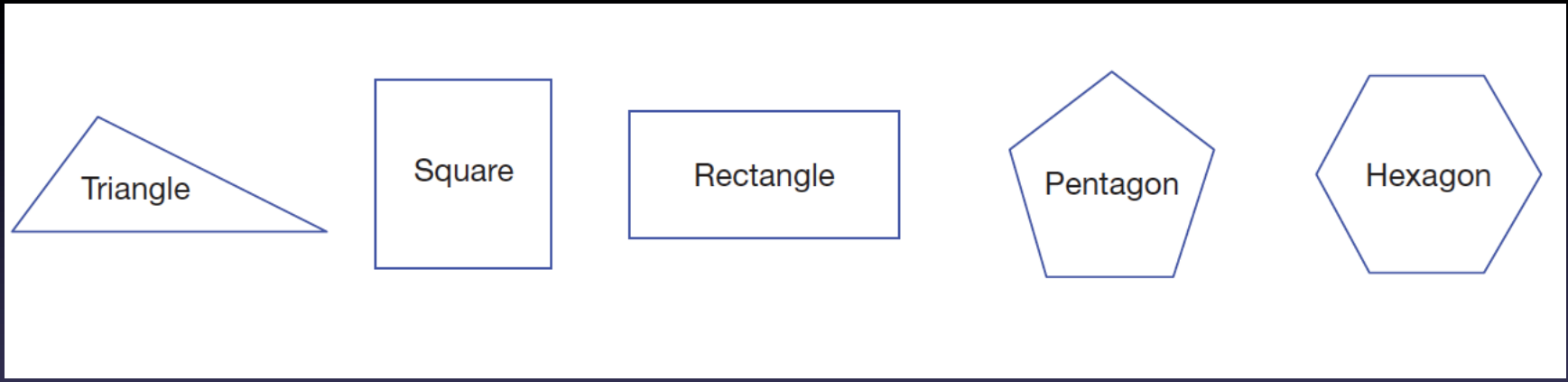
Question 8



Question 9

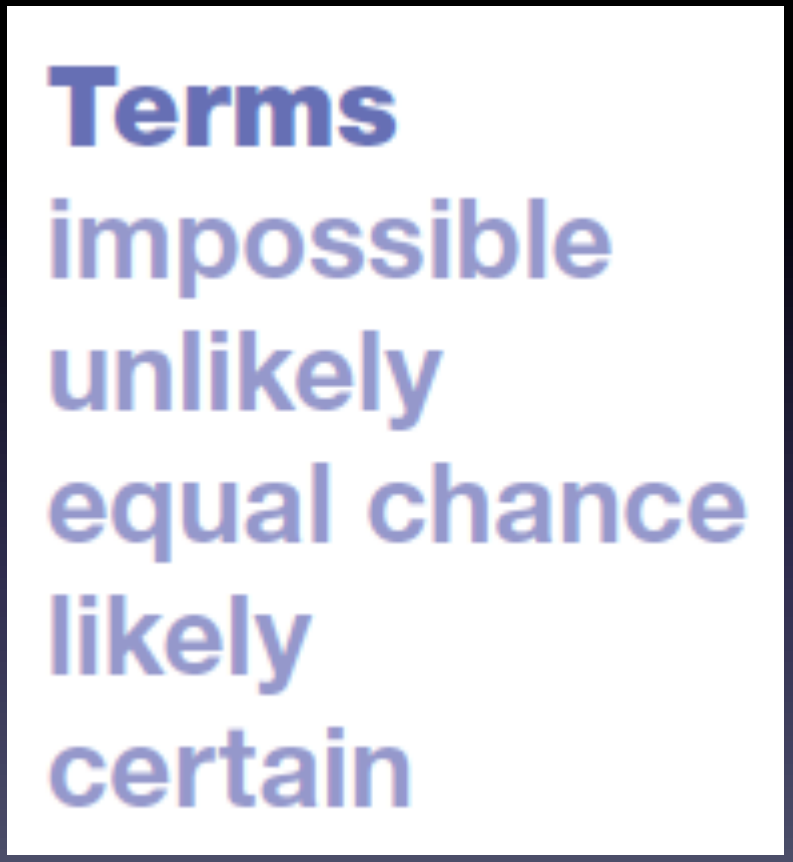
1 cm	×	100	=	1 m
10 cm	×	10	=	1 m
20 cm	×	5	=	1 m
50 cm	×	2	=	1 m

Question 10



Lesson 26

Question 11



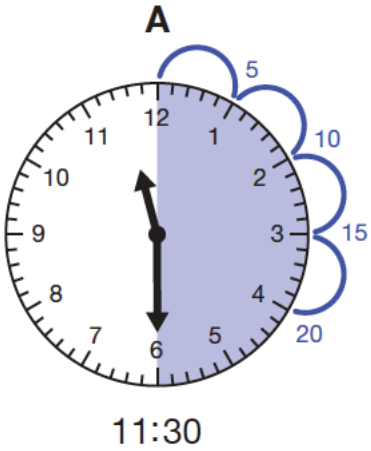
Question 12

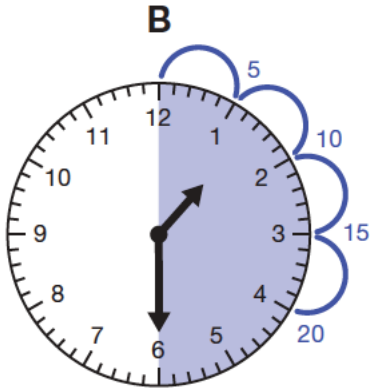
Number in set	Value		Set value
1	$100		$100
2	$50		$100
5	$20		$100
10	$10		$100
20	$5		$100
50	$2		$100
100	$1		$100
200	50¢		$100
500	20¢		$100
1000	10¢		$100
2000	5¢		$100

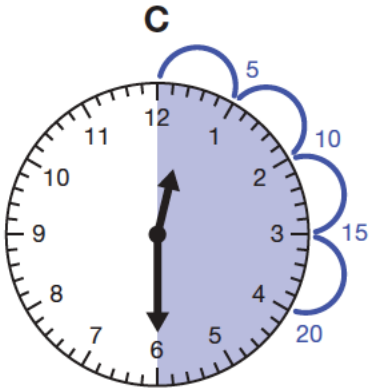
Lesson 26

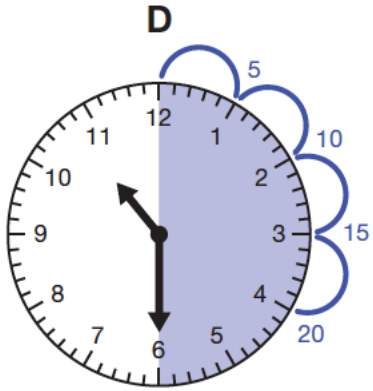
Question 13

60 minutes (min) = 1 hour (hr) = 2 half hours



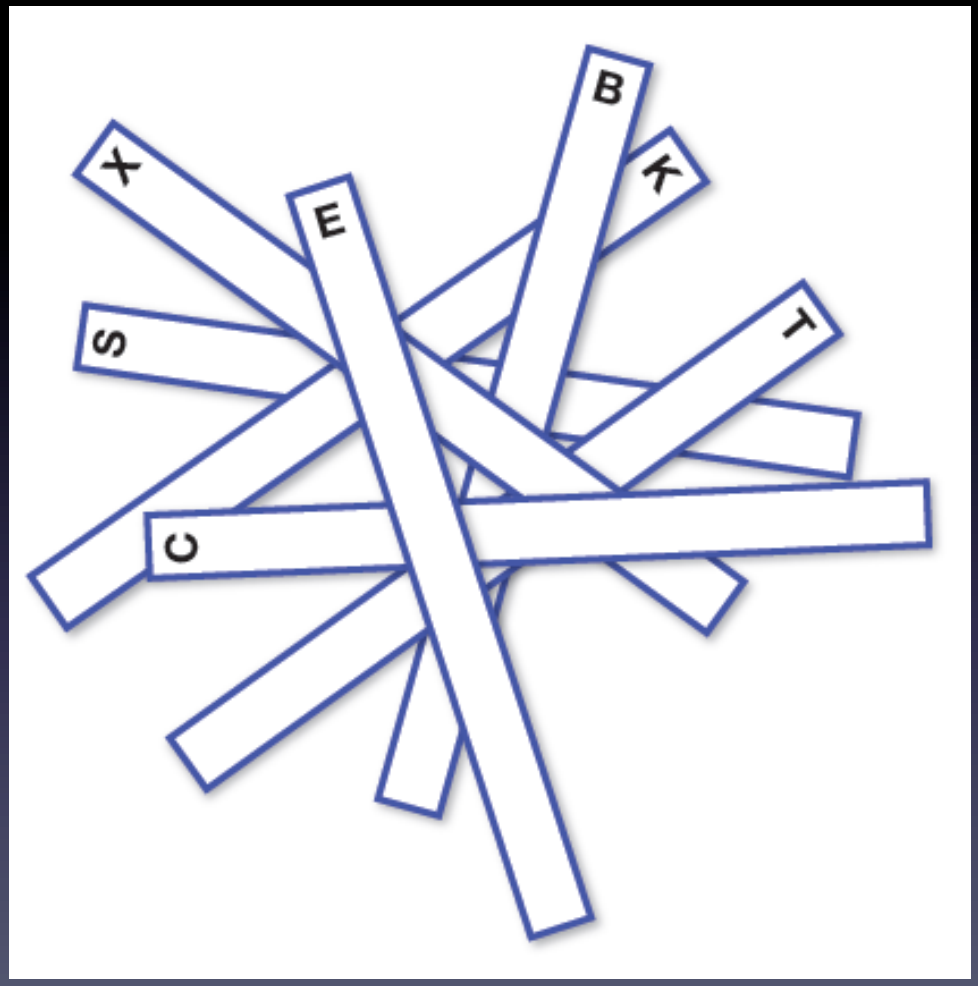






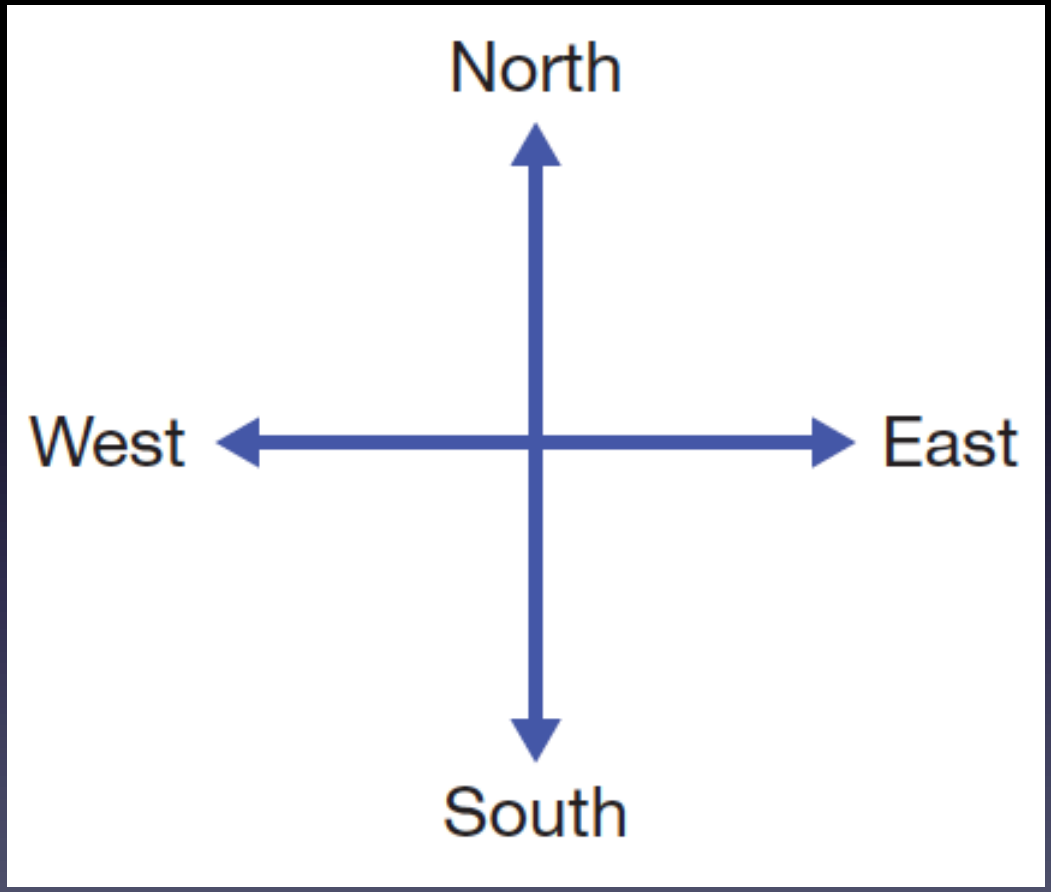
Lesson 26

Question 14



Lesson 26

Question 15



Return to index

Lesson 27

Copyright 2016

Question 1

									0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110

Question 2

19	+	67	=	20	+	66
19	+	67	=	16	+	70
19	+	48	=	20	+	47
19	+	48	=	17	+	50

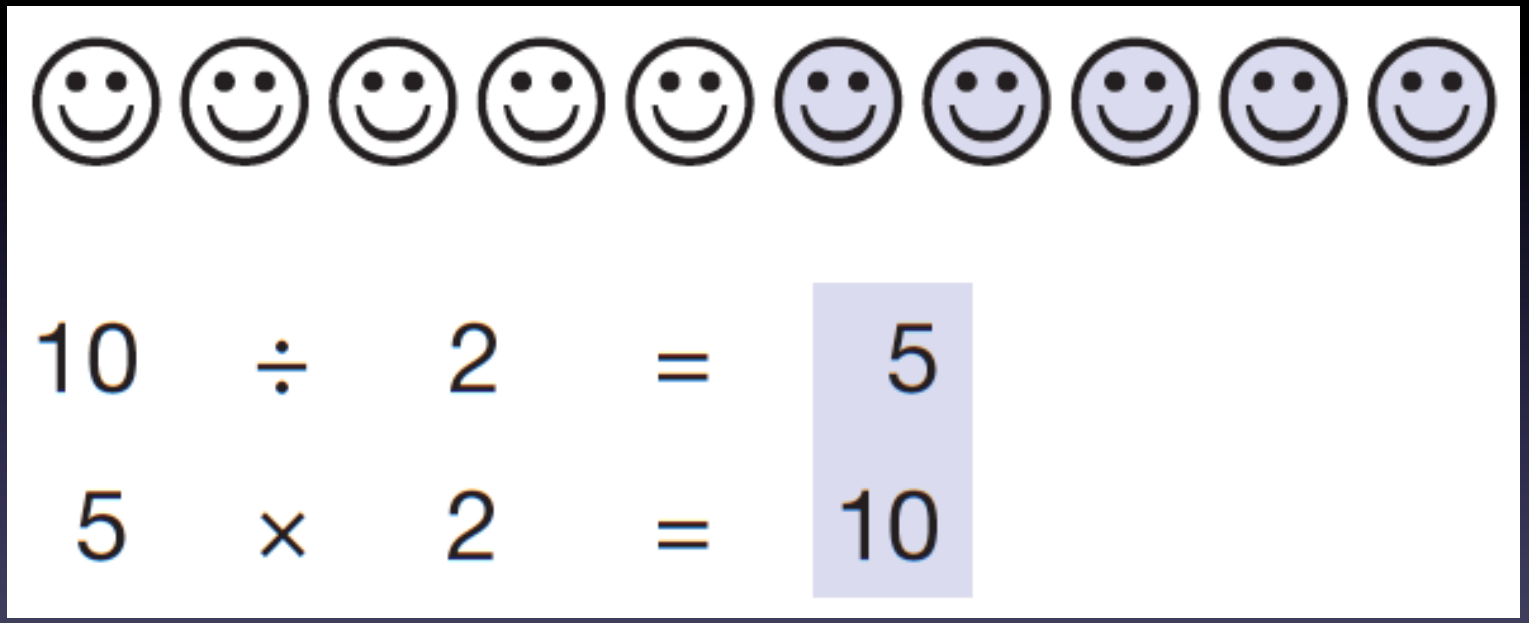
Question 3

Lesson 27

Question 4

				product		
88	×	5	=	?		
88	×	10	=	880	½	440

Question 5



$10 \div 2 = 5$

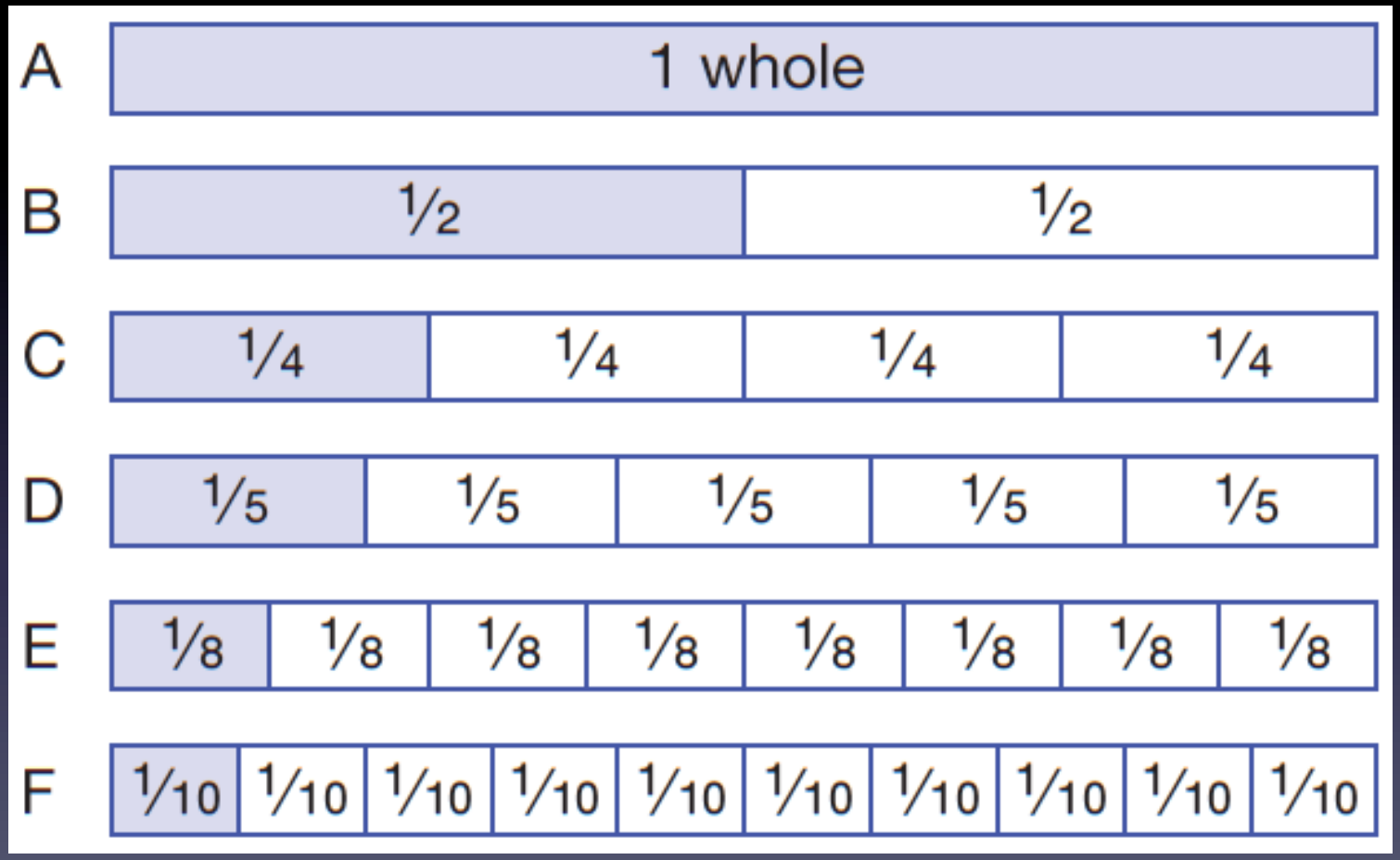
$5 \times 2 = 10$

Lesson 27

Question 6

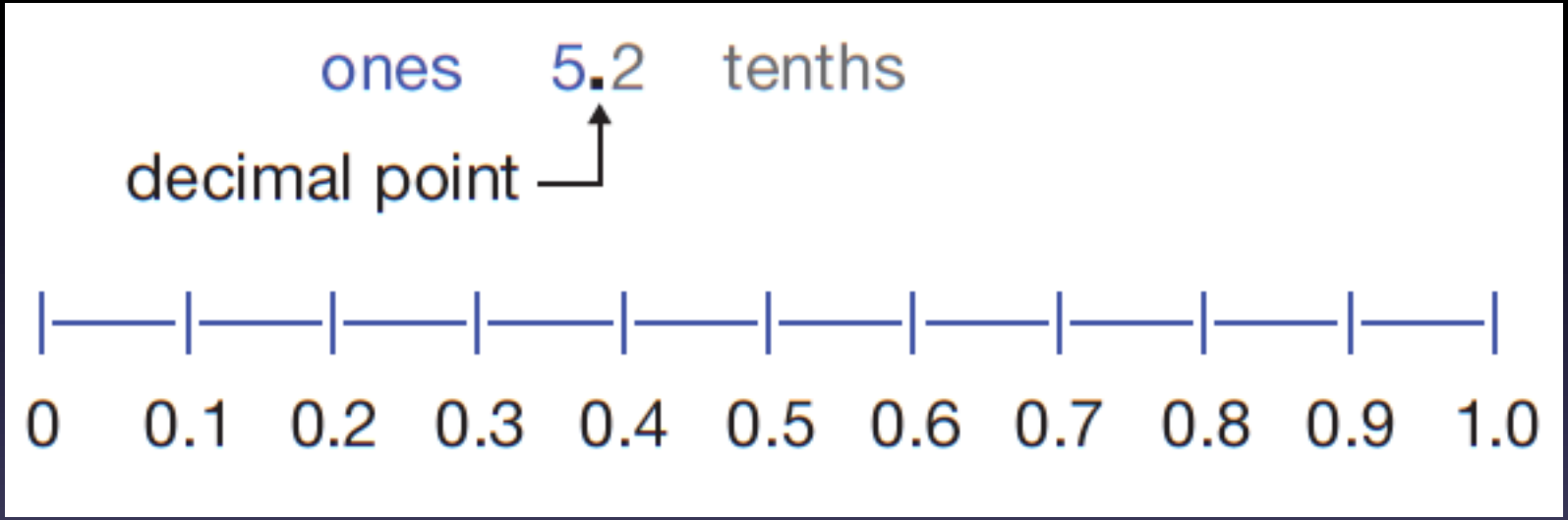
Roman number system			
symbol	**value**	**example**	
I	one	II = 1 + 1 = 2	
V	five	IV = 5 – 1 = 4	
X	ten	IX = 10 – 1 = 9	XIV = 14
L	fifty	LV = 50 + 5 = 55	

Question 7



Lesson 27

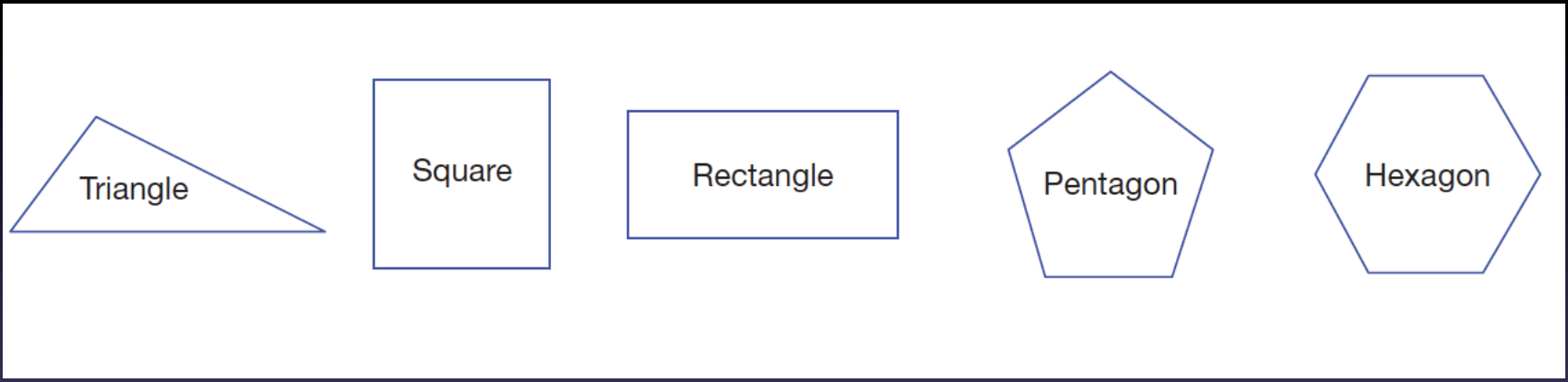
Question 8



Question 9

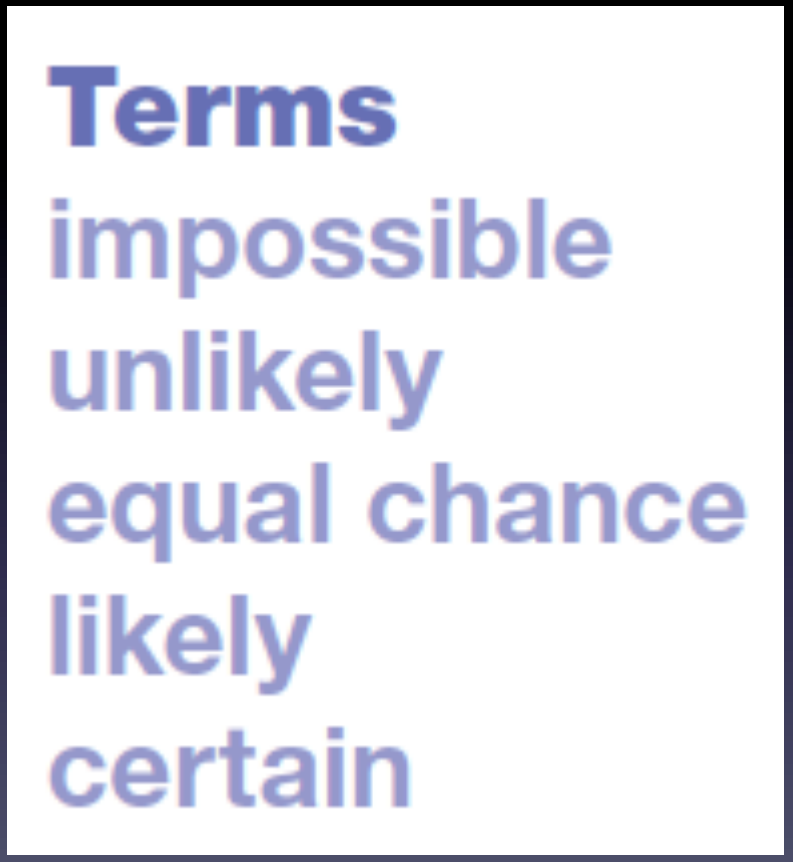
1 cm	×	100	=	1 m
10 cm	×	10	=	1 m
20 cm	×	5	=	1 m
50 cm	×	2	=	1 m

Question 10



Lesson 27

Question 11



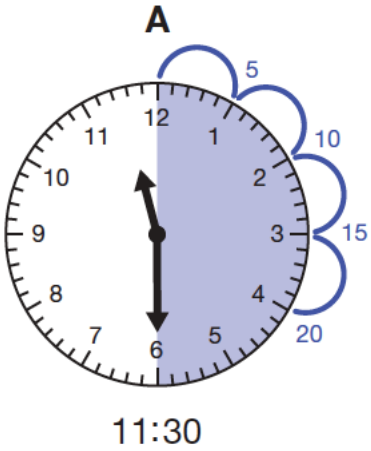
Question 12

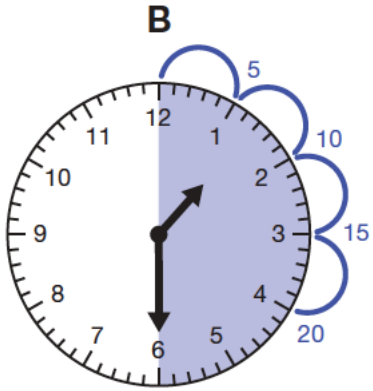
Number in set	Value		Set value
1	$100		$100
2	$50		$100
5	$20		$100
10	$10		$100
20	$5		$100
50	$2		$100
100	$1		$100
200	50¢		$100
500	20¢		$100
1000	10¢		$100
2000	5¢		$100

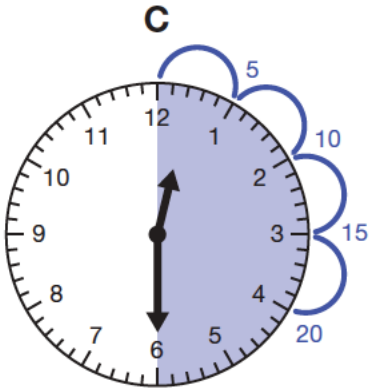
Lesson 27

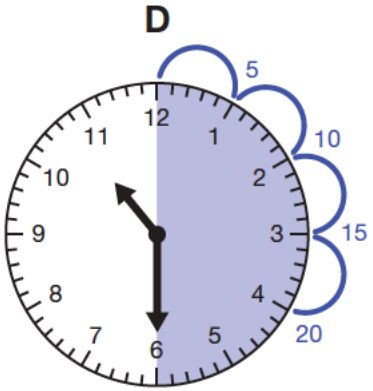
Question 13

60 minutes (min) = 1 hour (hr) = 2 half hours



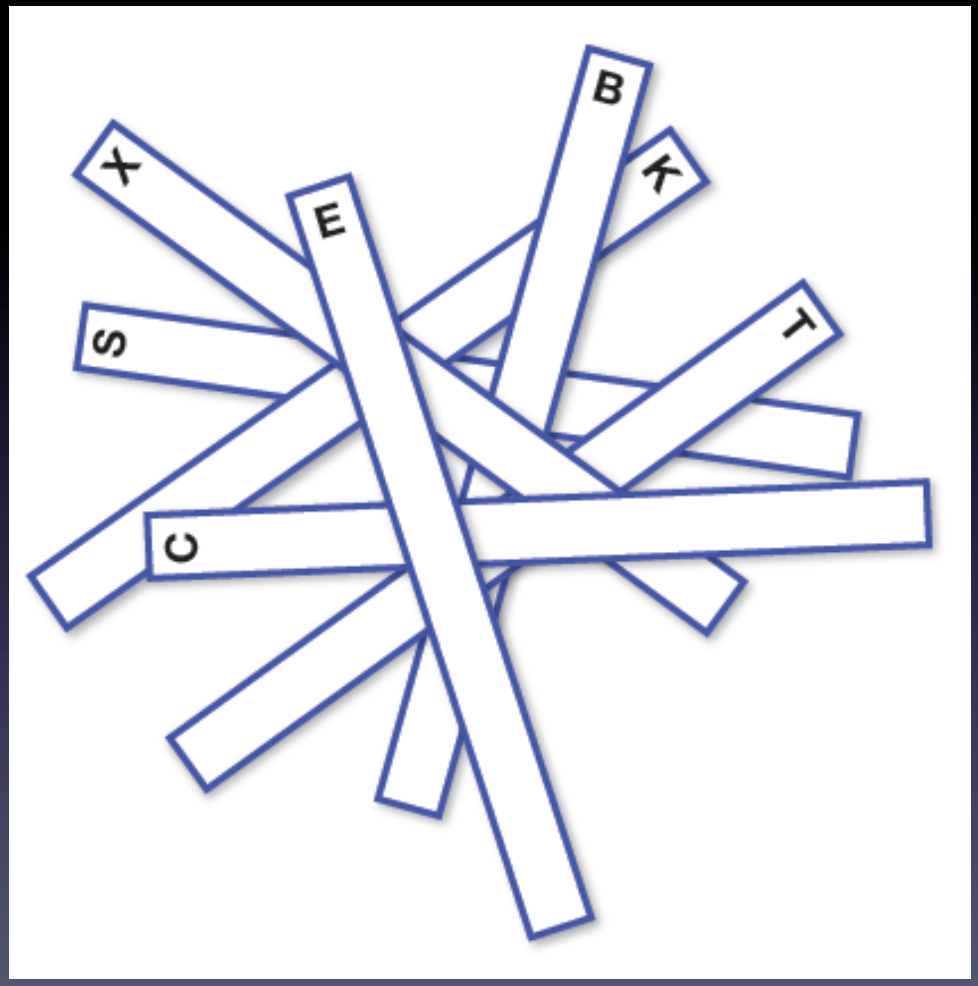






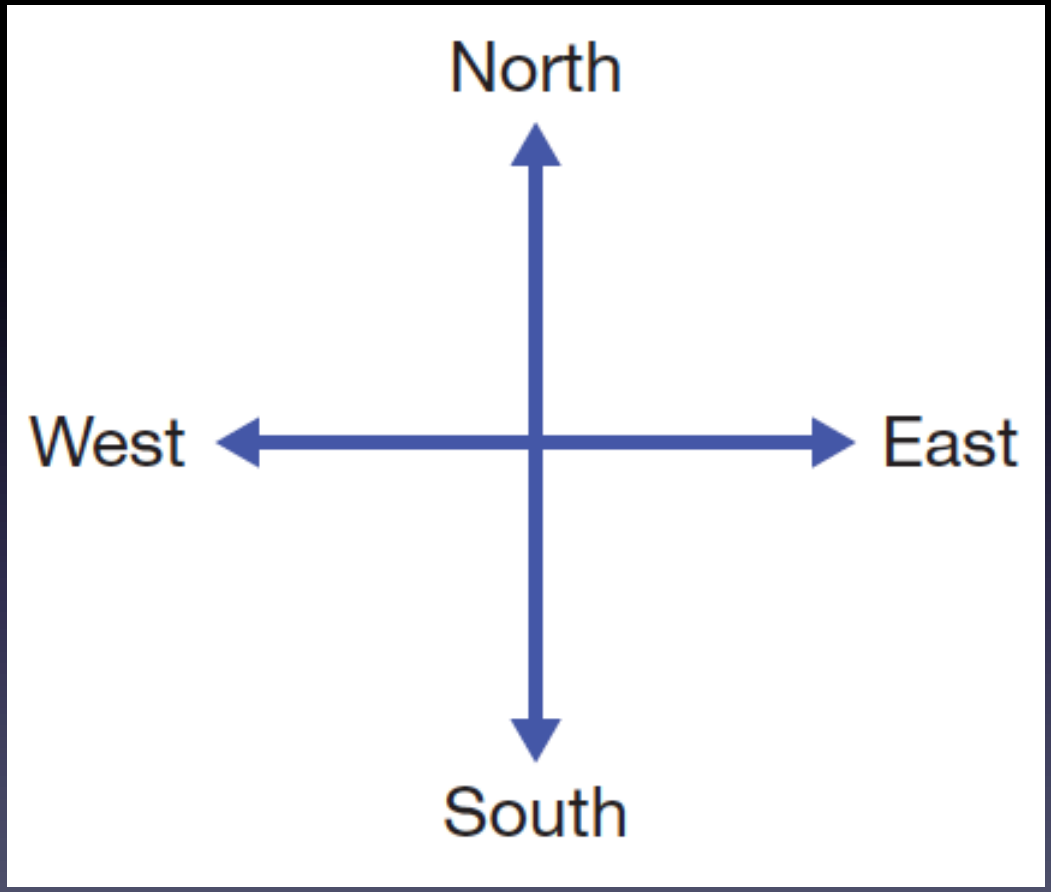
Lesson 27

Question 14



Lesson 27

Question 15



Return to index

Lesson 28

Copyright 2016

Question 1

									0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110

Question 2

19	+	67	=	20	+	66
19	+	67	=	16	+	70
19	+	48	=	20	+	47
19	+	48	=	17	+	50

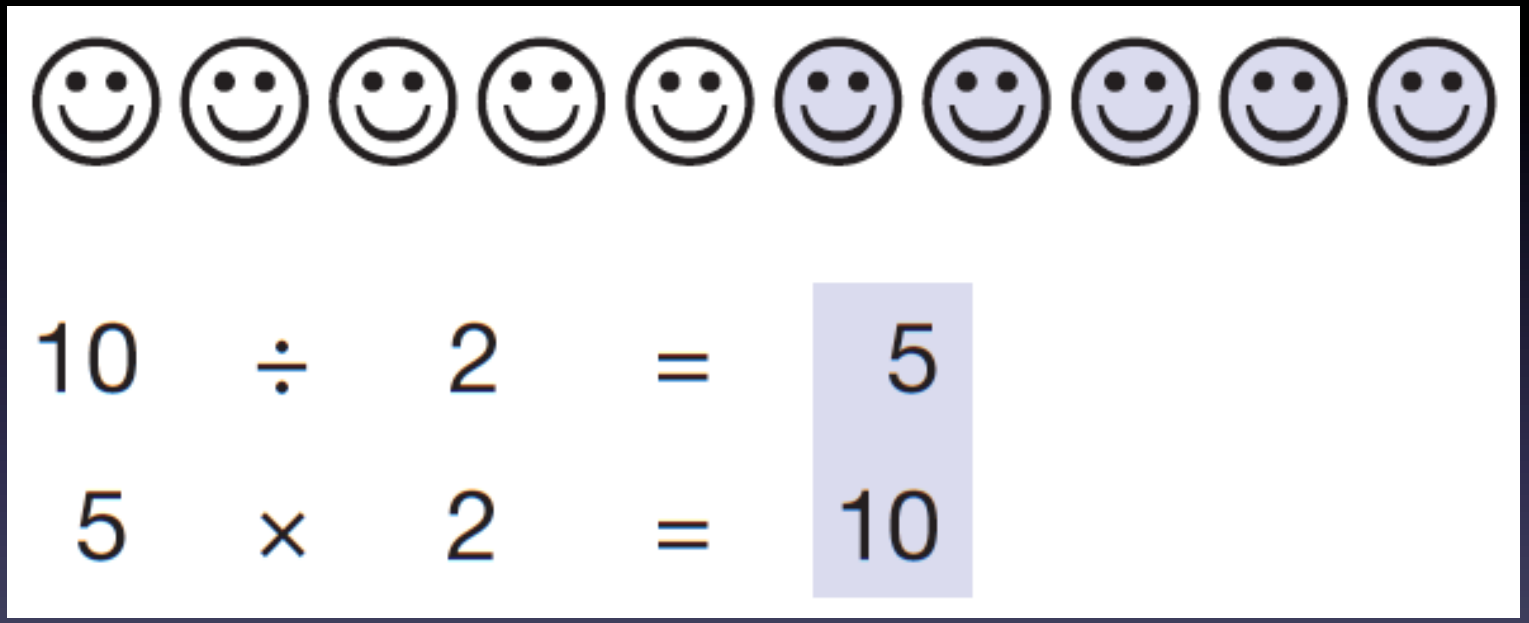
Question 3

Lesson 28

Question 4

				product		
88	×	5	=	?		
88	×	10	=	880	½	440

Question 5



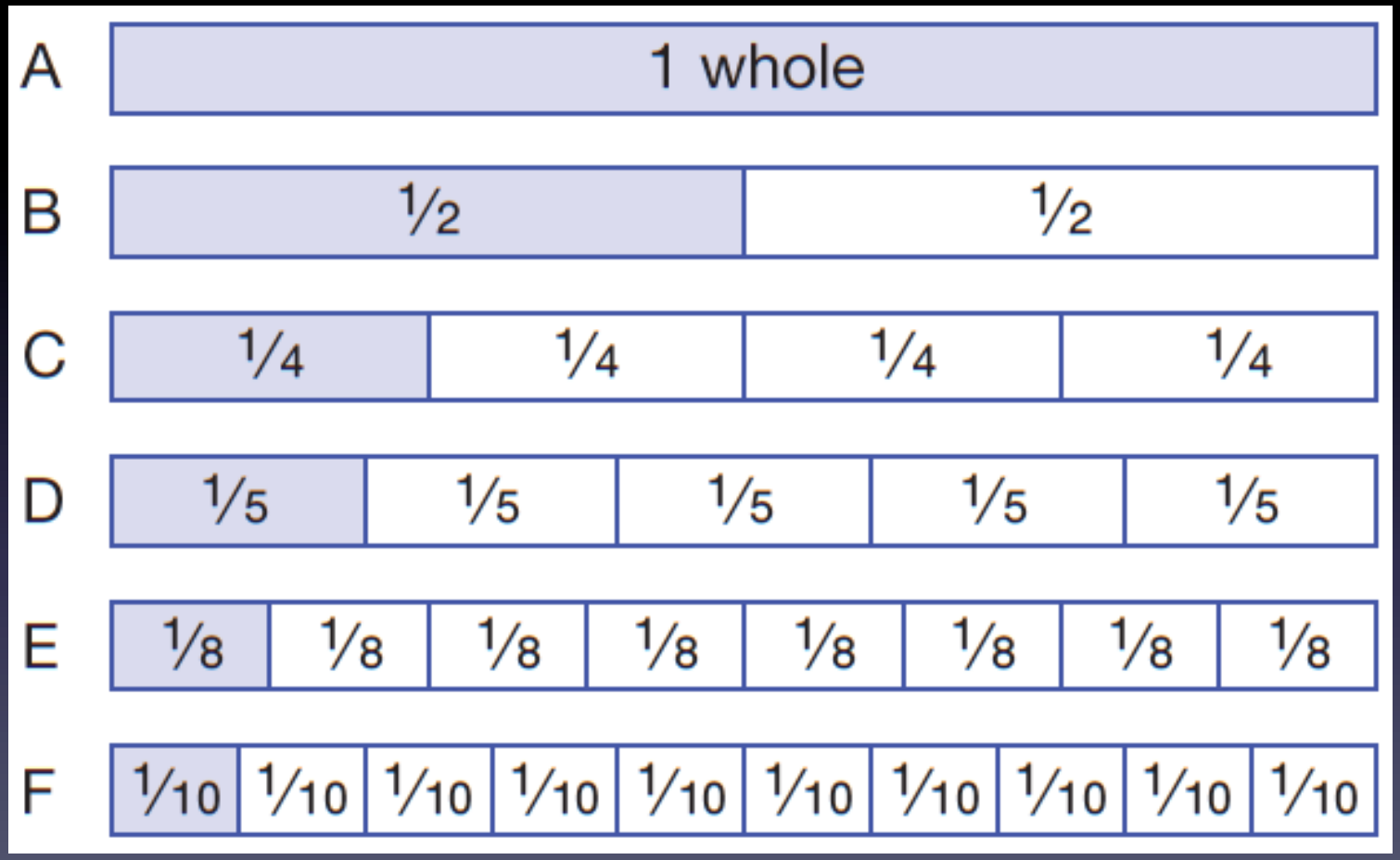
$10 \div 2 = 5$

$5 \times 2 = 10$

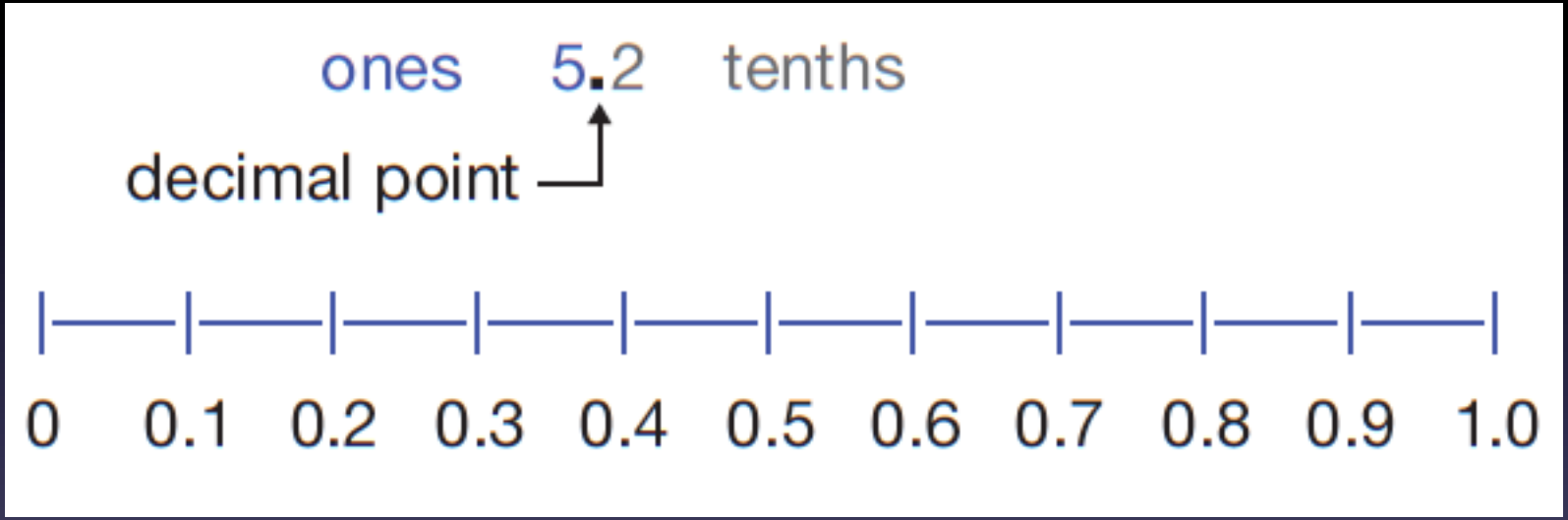
Question 6

Roman number system			
symbol	**value**	**example**	
I	one	II = 1 + 1 = 2	
V	five	IV = 5 – 1 = 4	
X	ten	IX = 10 – 1 = 9	XIV = 14
L	fifty	LV = 50 + 5 = 55	

Question 7


A
1 whole
B
1/2
1/2
C
1/4
1/4
1/4
1/4
D
1/5
1/5
1/5
1/5
1/5
E
1/8
1/8
1/8
1/8
1/8
1/8
1/8
1/8
F
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10

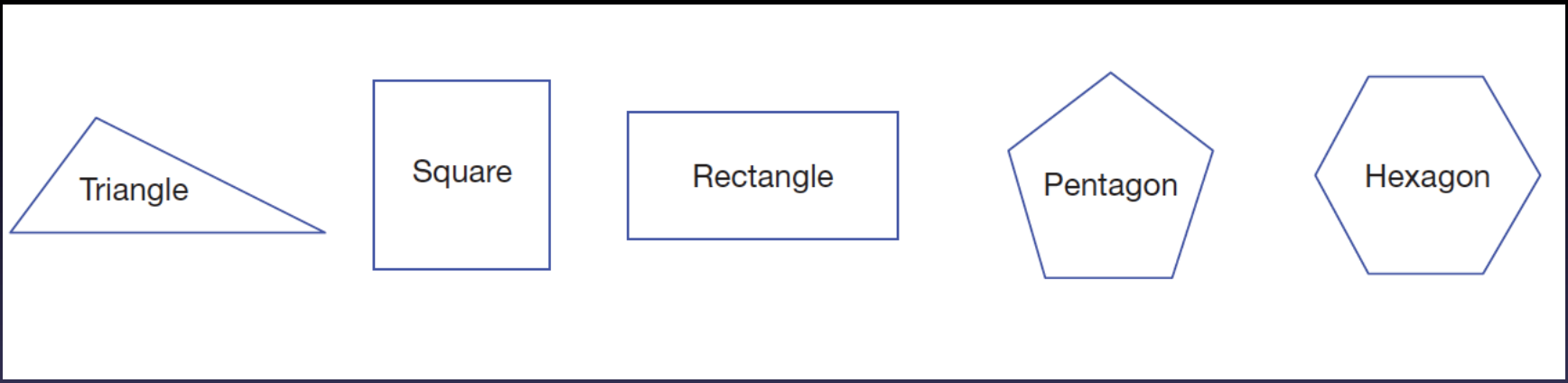
Question 8



Question 9

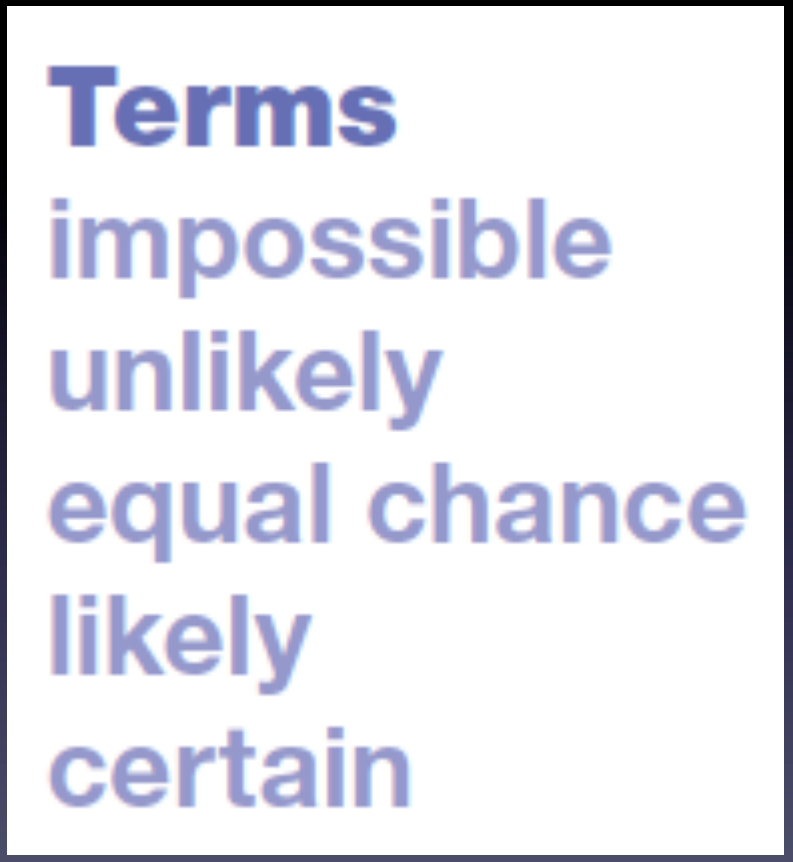
1 cm	×	100	=	1 m
10 cm	×	10	=	1 m
20 cm	×	5	=	1 m
50 cm	×	2	=	1 m

Question 10



Lesson 28

Question 11



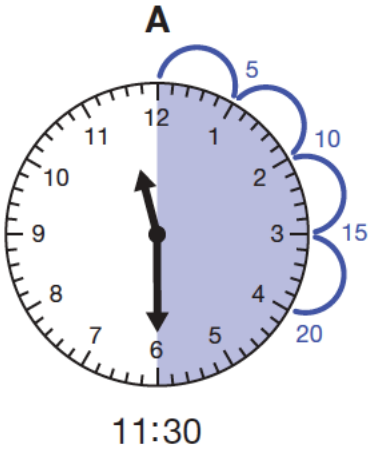
Question 12

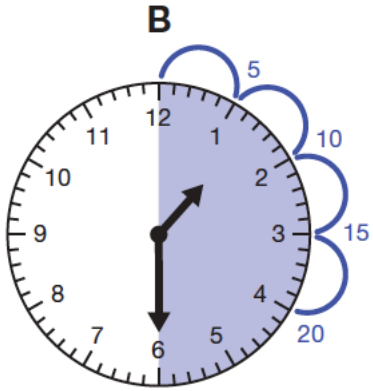
Number in set	Value		Set value
1	$100		$100
2	$50		$100
5	$20		$100
10	$10		$100
20	$5		$100
50	$2		$100
100	$1		$100
200	50¢		$100
500	20¢		$100
1000	10¢		$100
2000	5¢		$100

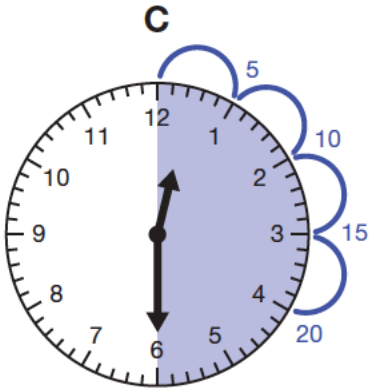
Lesson 28

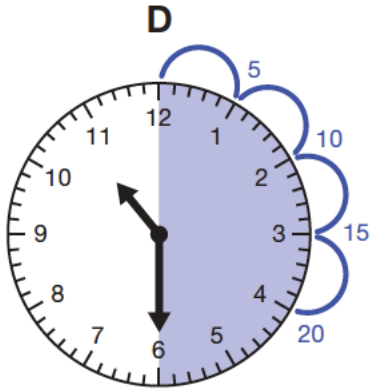
Question 13

60 minutes (min) = 1 hour (hr) = 2 half hours



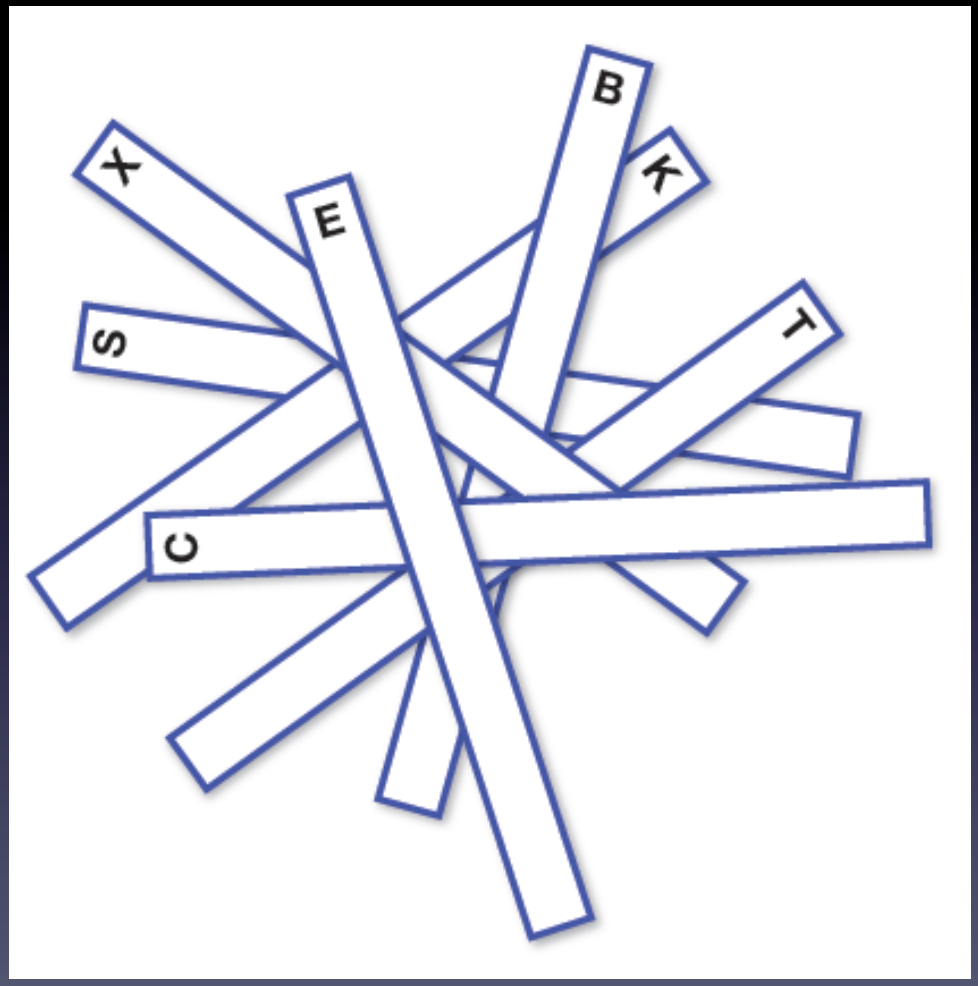






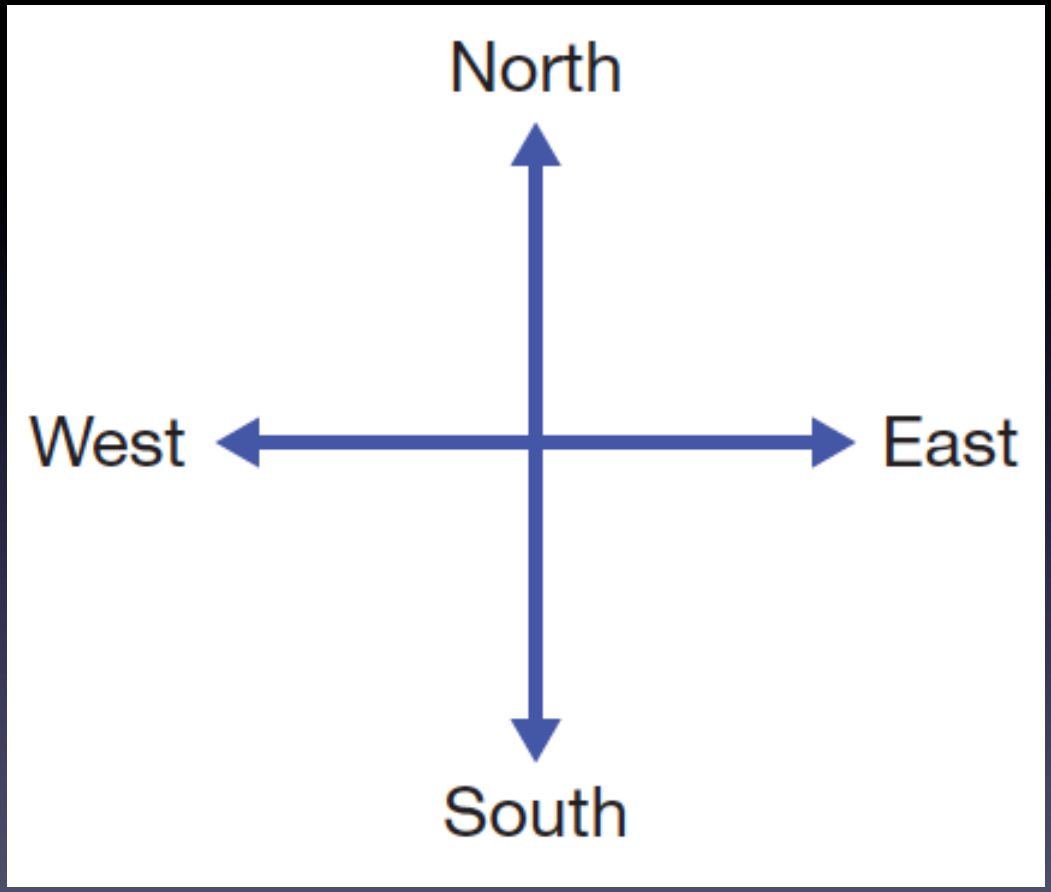
Lesson 28

Question 14



Lesson 28

Question 15



Lesson 28

Return to index

Lesson 29

Copyright 2016

Question 1

									0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110

Question 2

19	+	67	=	20	+	66
19	+	67	=	16	+	70
19	+	48	=	20	+	47
19	+	48	=	17	+	50

Question 3

Lesson 29

Question 4

				product		
88	×	5	=	?		
88	×	10	=	880	½	440

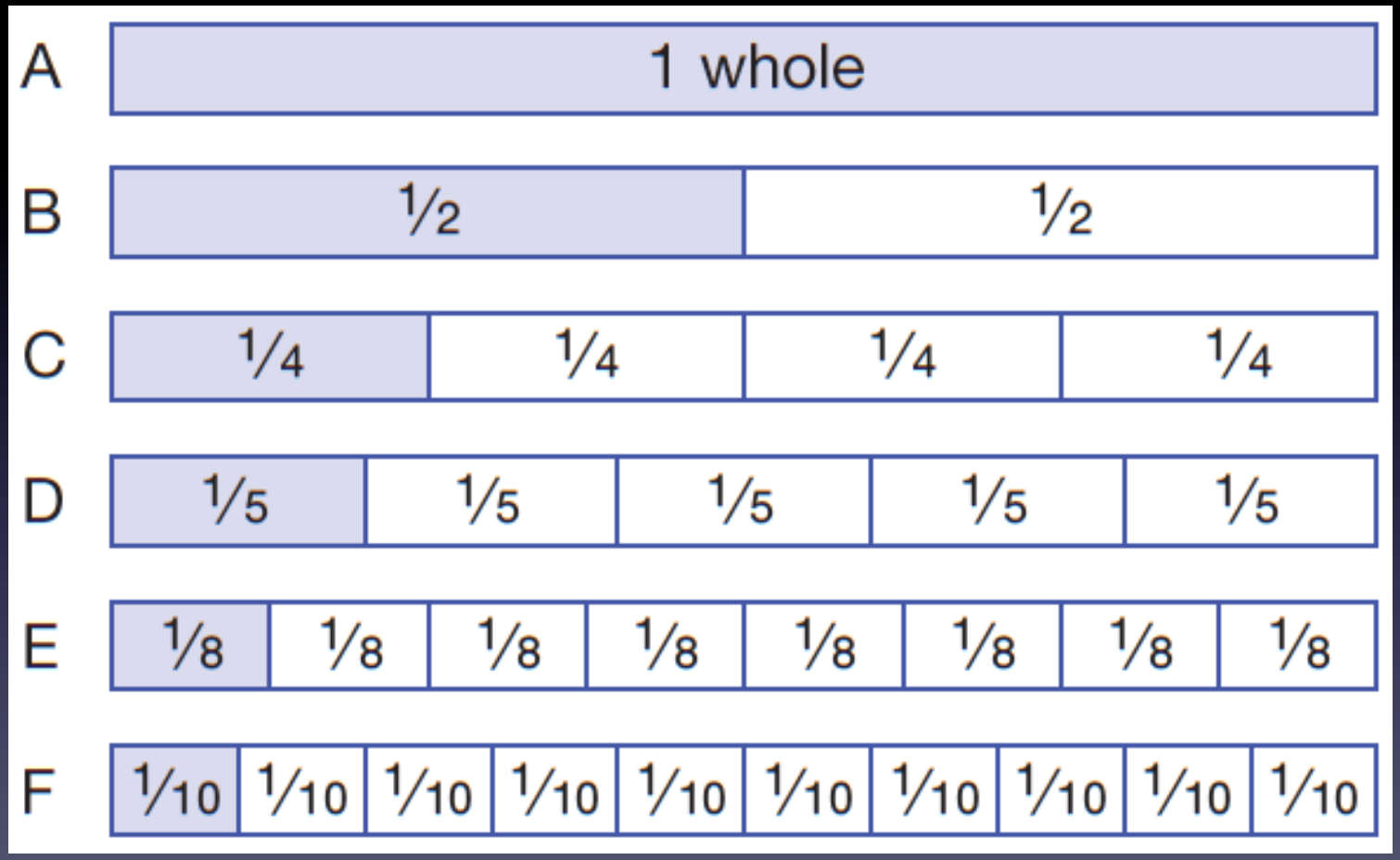
Question 5

Lesson 29

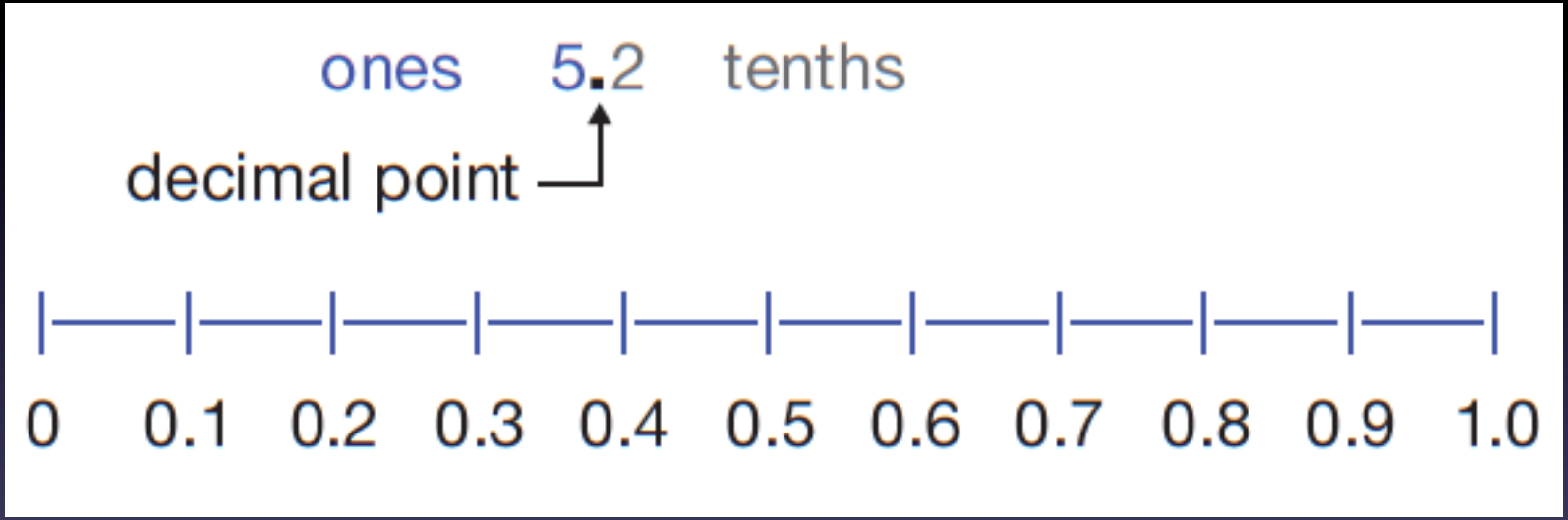
Question 6

Roman number system			
symbol	**value**	**example**	
I	one	II = 1 + 1 = 2	
V	five	IV = 5 – 1 = 4	
X	ten	IX = 10 – 1 = 9	XIV = 14
L	fifty	LV = 50 + 5 = 55	

Question 7


A
1 whole
B
1/2
1/2
C
1/4
1/4
1/4
1/4
D
1/5
1/5
1/5
1/5
1/5
E
1/8
1/8
1/8
1/8
1/8
1/8
1/8
1/8
F
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10
1/10

Question 8

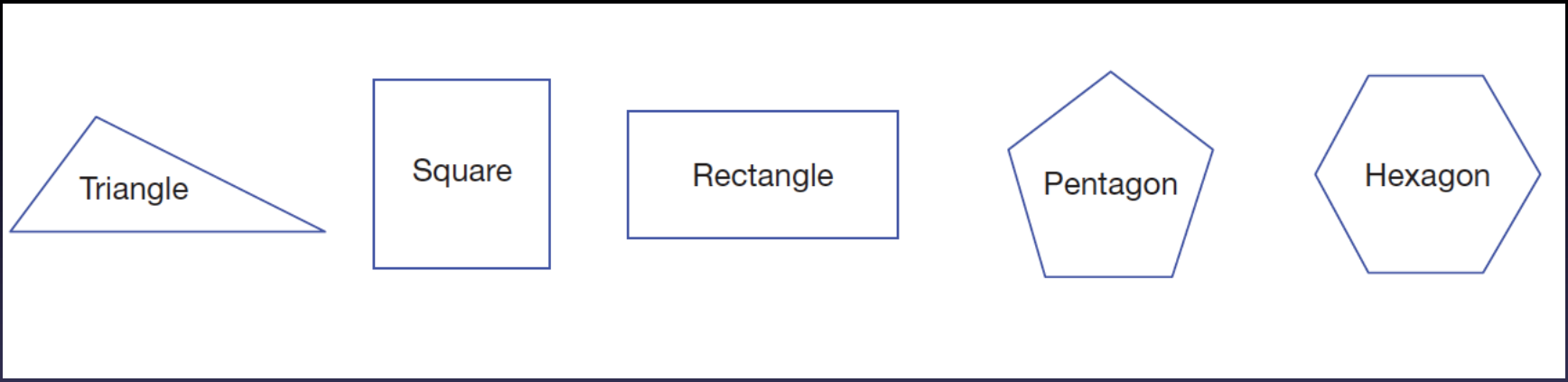


Lesson 29

Question 9

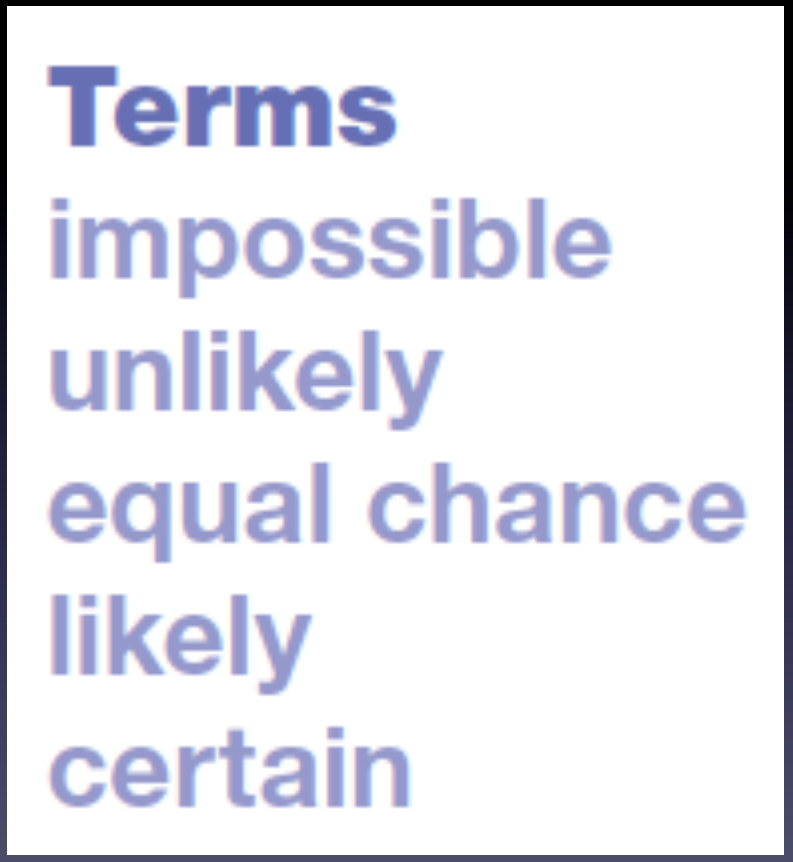
1 cm	×	100	=	1 m
10 cm	×	10	=	1 m
20 cm	×	5	=	1 m
50 cm	×	2	=	1 m

Question 10



Lesson 29

Question 11



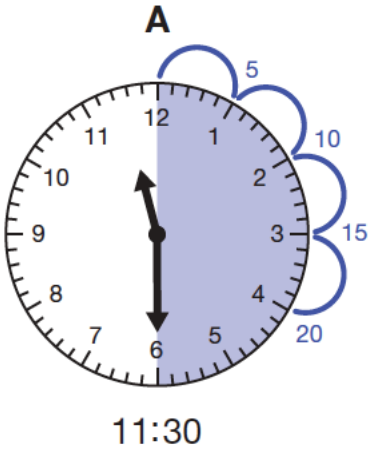
Question 12

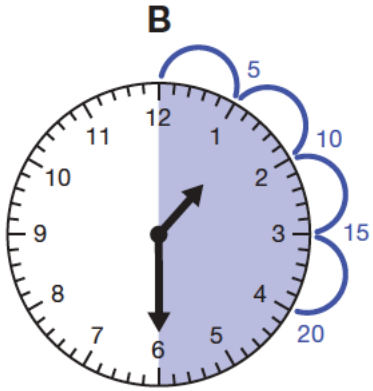
Number in set	Value		Set value
1	$100		$100
2	$50		$100
5	$20		$100
10	$10		$100
20	$5		$100
50	$2		$100
100	$1		$100
200	50¢		$100
500	20¢		$100
1000	10¢		$100
2000	5¢		$100

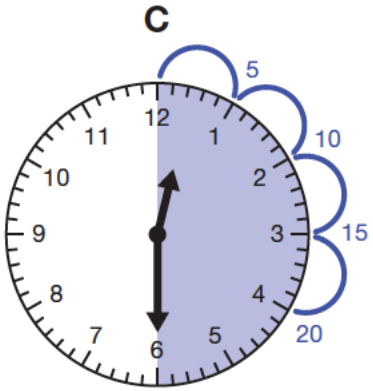
Lesson 29

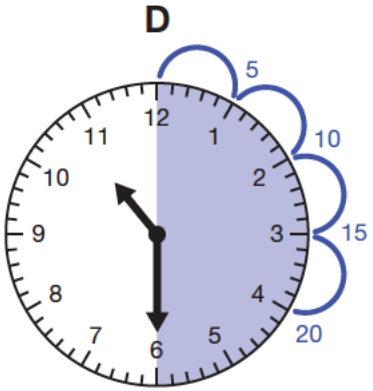
Question 13

60 minutes (min) = 1 hour (hr) = 2 half hours



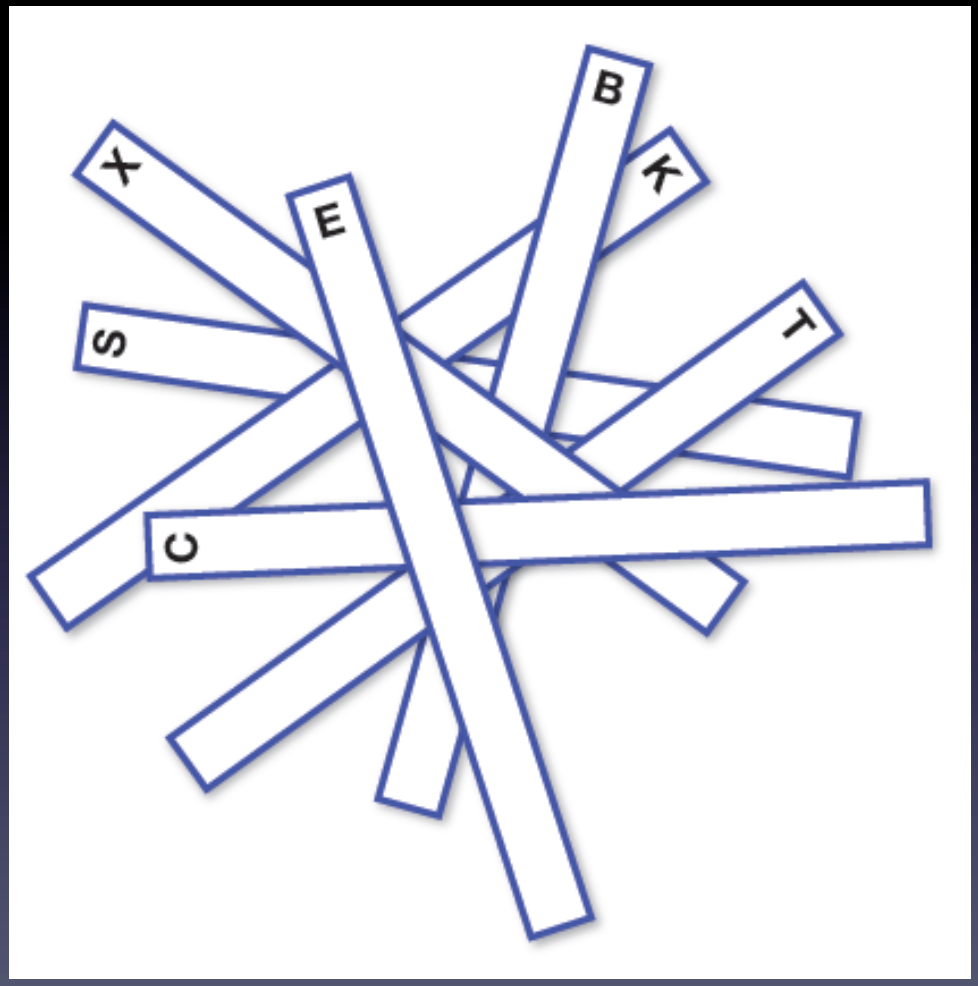






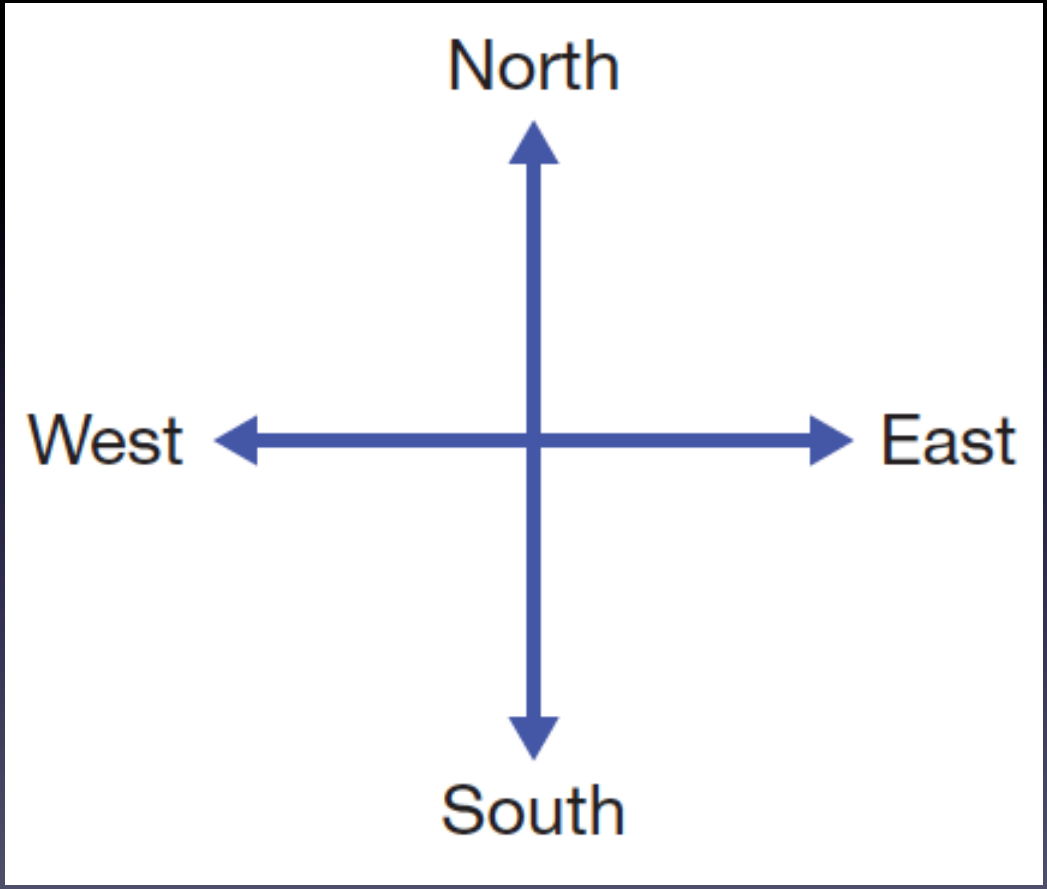
Lesson 29

Question 14



Lesson 29

Question 15



Return to index

Lesson 30

Copyright 2016

Question 1

									0
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110

Question 2

19	+	67	=	20	+	66
19	+	67	=	16	+	70
19	+	48	=	20	+	47
19	+	48	=	17	+	50

Question 3

Lesson 30

Question 4

				product		
88	×	5	=	?		
88	×	10	=	880	½	440

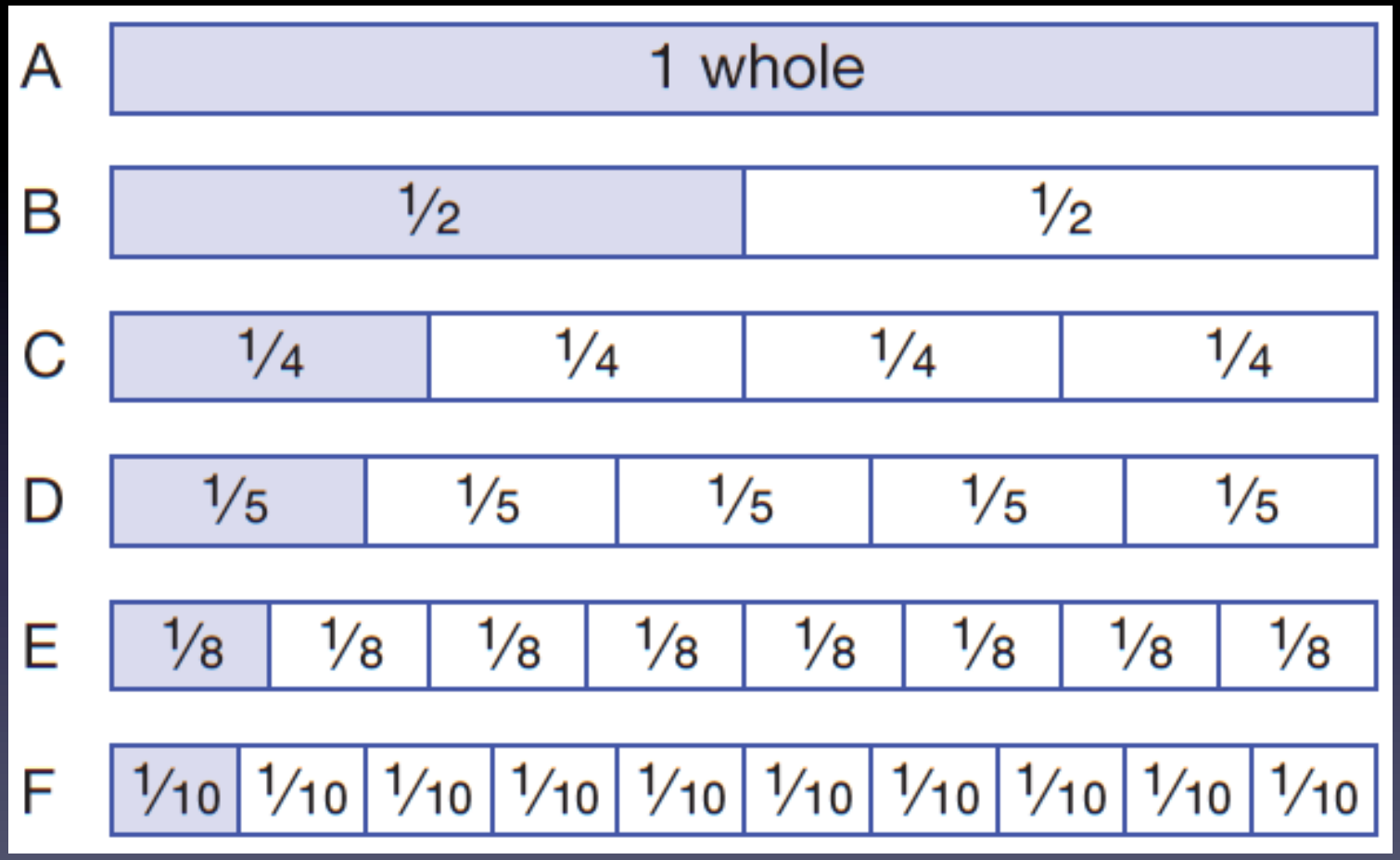
Question 5

Lesson 30

Question 6

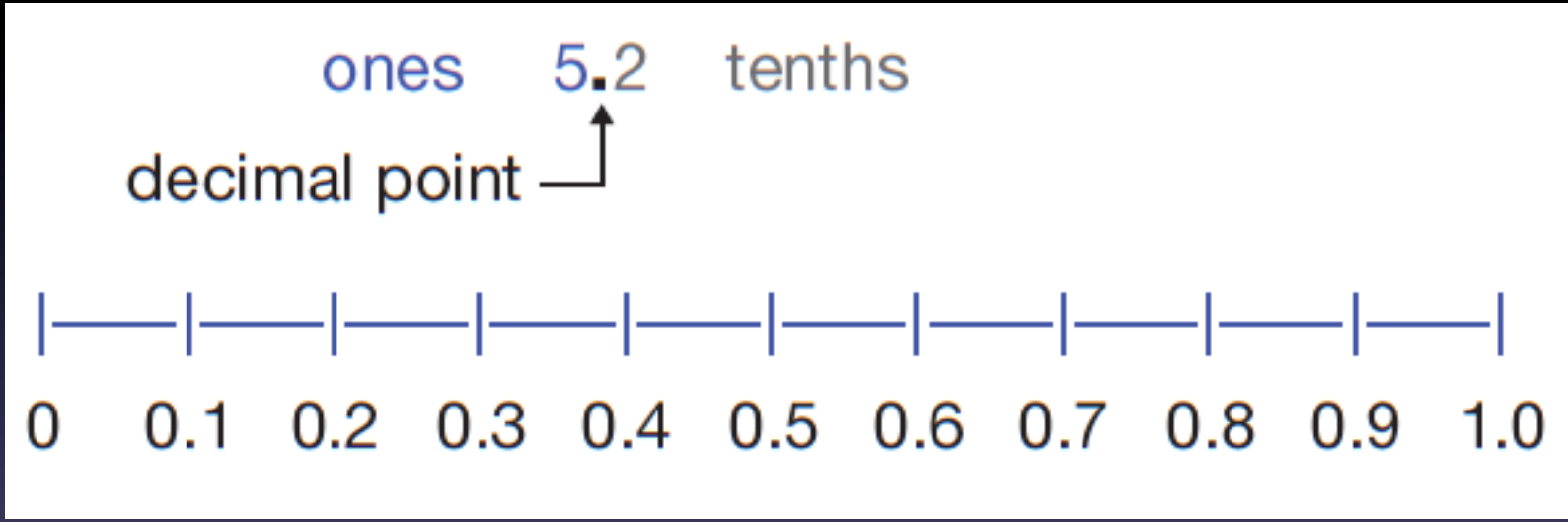
Roman number system			
symbol	**value**	**example**	
I	one	II = 1 + 1 = 2	
V	five	IV = 5 – 1 = 4	
X	ten	IX = 10 – 1 = 9	XIV = 14
L	fifty	LV = 50 + 5 = 55	

Question 7



Lesson 30

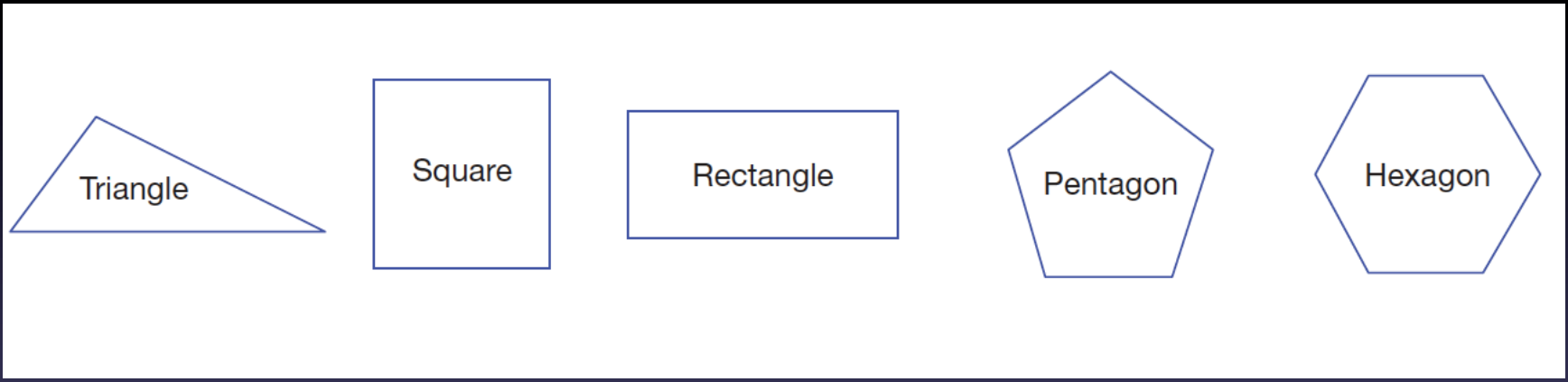
Question 8



Question 9

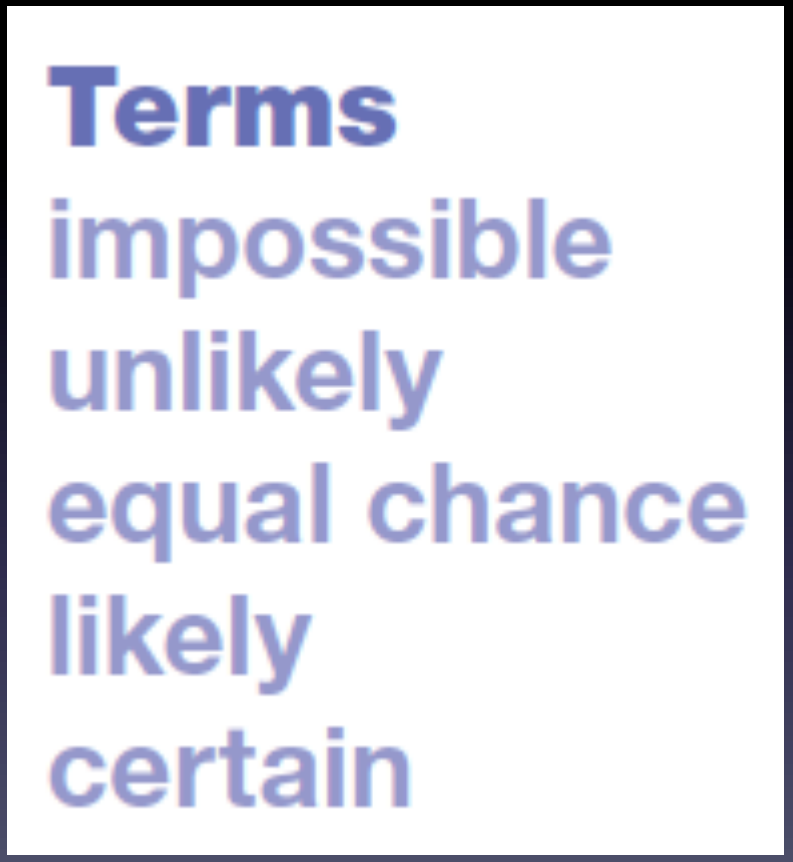
1 cm	×	100	=	1 m
10 cm	×	10	=	1 m
20 cm	×	5	=	1 m
50 cm	×	2	=	1 m

Question 10



Lesson 30

Question 11



Question 12

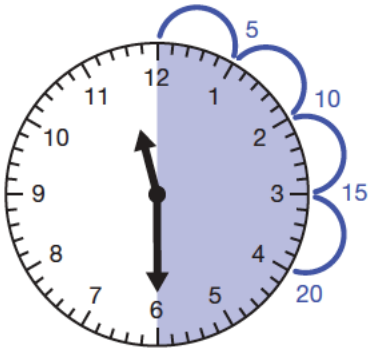
Number in set	Value		Set value
1	$100		$100
2	$50		$100
5	$20		$100
10	$10		$100
20	$5		$100
50	$2		$100
100	$1		$100
200	50¢		$100
500	20¢		$100
1000	10¢		$100
2000	5¢		$100

Lesson 30

Question 13

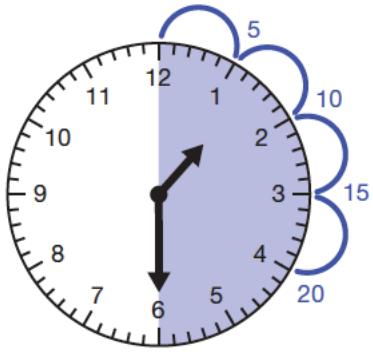
60 minutes (min) = 1 hour (hr) = 2 half hours

A

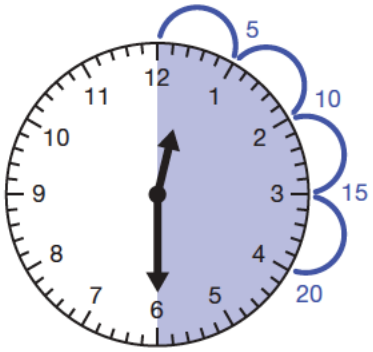


11:30

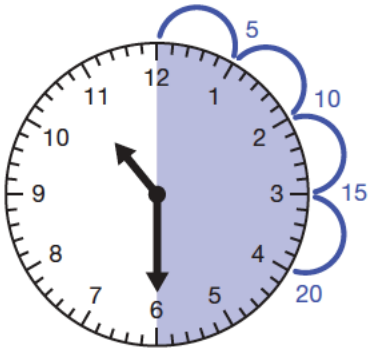
B



C

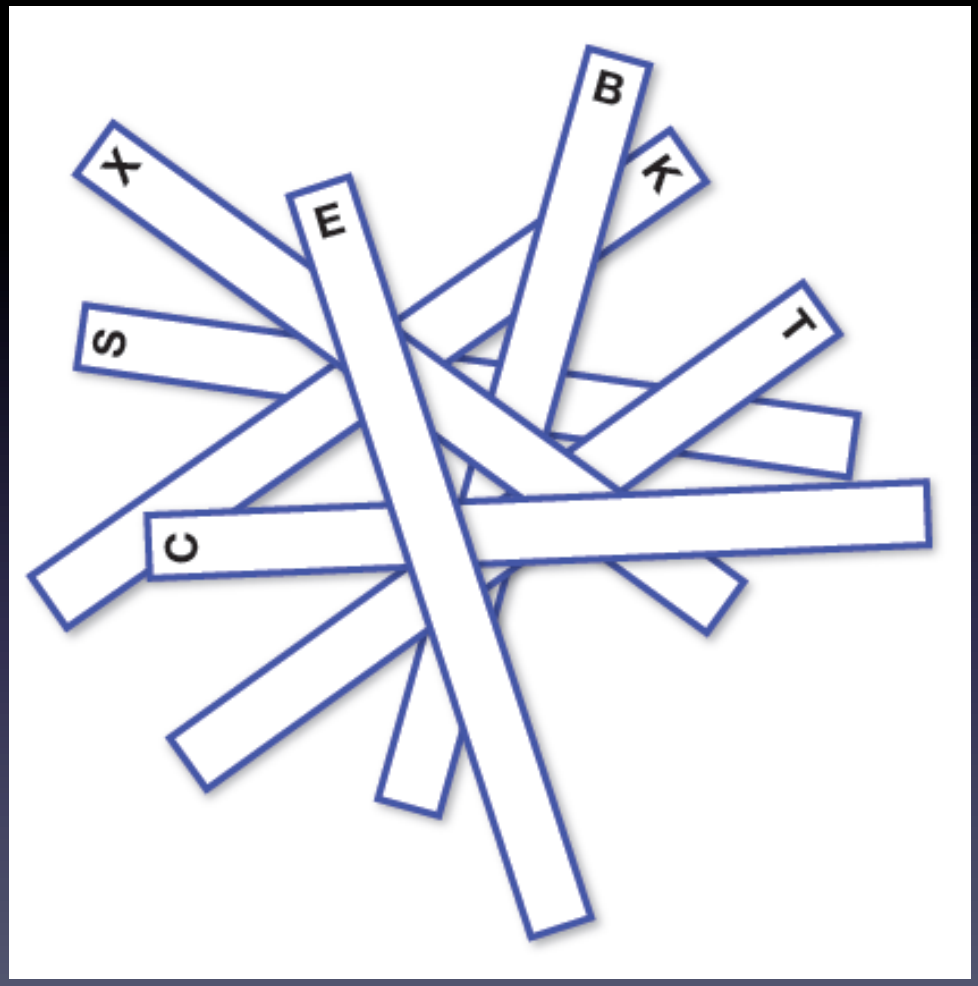


D



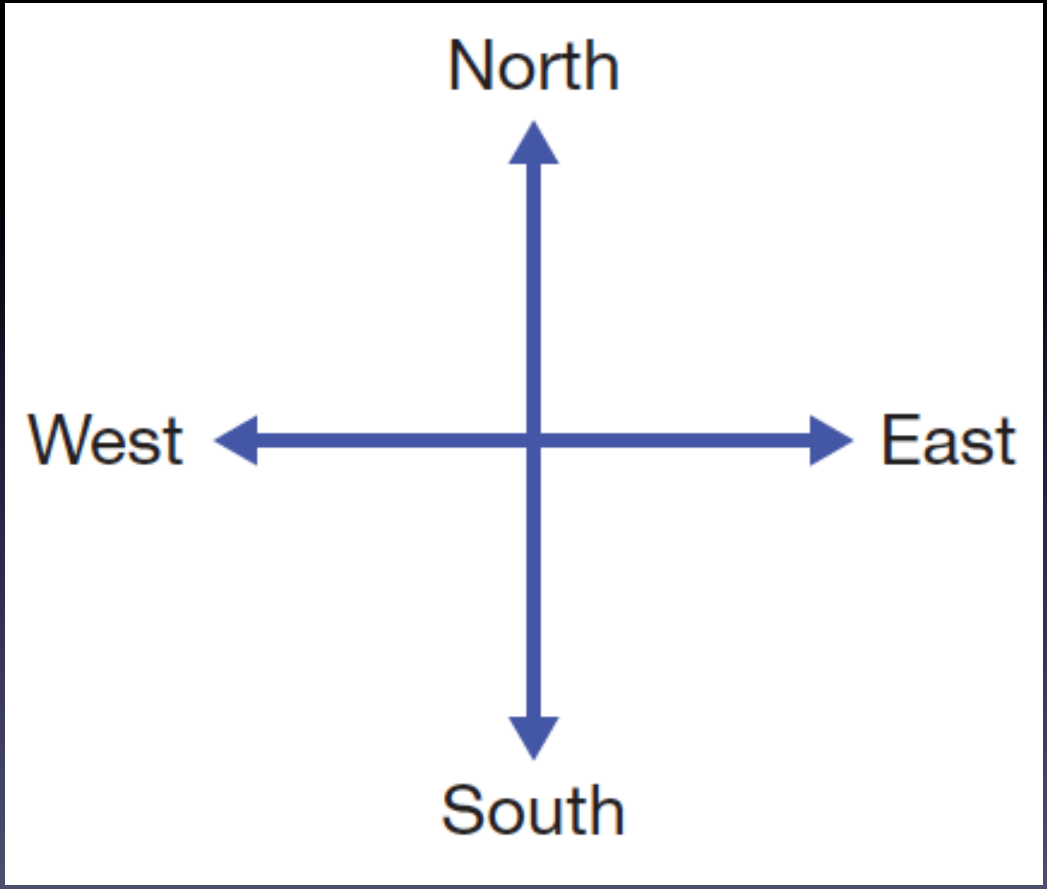
Lesson 30

Question 14



Lesson 30

Question 15



Complete ROUND TASK on next page