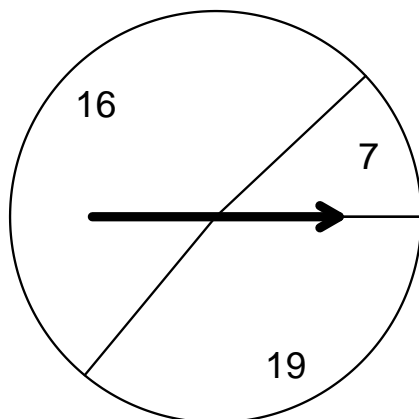


1. Problem

The spinner below will be used to generate a sample.



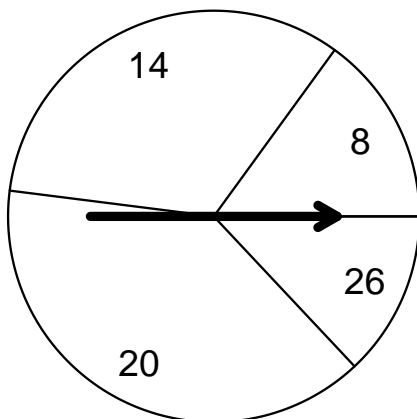
The spinner's probability distribution is shown below.

i	x_i	p_i
1	7	0.12
2	16	0.52
3	19	0.36

- (a) Determine the mean of the probability distribution by using $\mu = \sum p_i x_i$.
- (b) Determine the standard deviation of the probability distribution by using $\sigma = \sqrt{\sum p_i (x_i - \mu)^2}$.

2. Problem

The spinner below will be used to generate a sample.



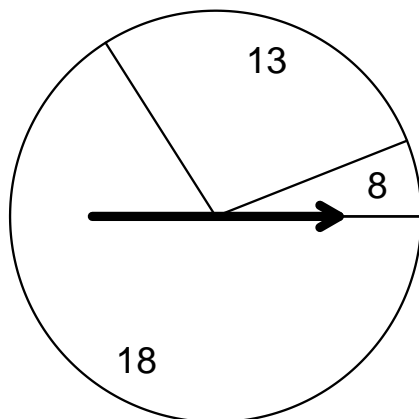
The spinner's probability distribution is shown below.

i	x_i	p_i
1	8	0.15
2	14	0.33
3	20	0.39
4	26	0.13

- (a) Determine the mean of the probability distribution by using $\mu = \sum p_i x_i$.
- (b) Determine the standard deviation of the probability distribution by using $\sigma = \sqrt{\sum p_i (x_i - \mu)^2}$.

3. Problem

The spinner below will be used to generate a sample.



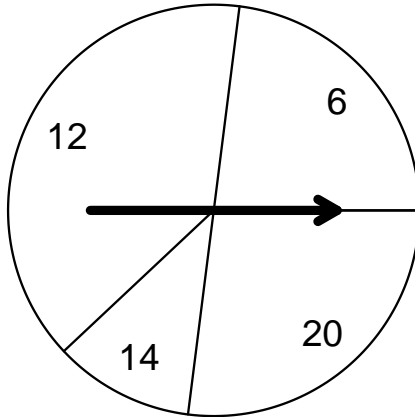
The spinner's probability distribution is shown below.

i	x_i	p_i
1	8	0.06
2	13	0.28
3	18	0.66

- (a) Determine the mean of the probability distribution by using $\mu = \sum p_i x_i$.
- (b) Determine the standard deviation of the probability distribution by using $\sigma = \sqrt{\sum p_i (x_i - \mu)^2}$.

4. Problem

The spinner below will be used to generate a sample.



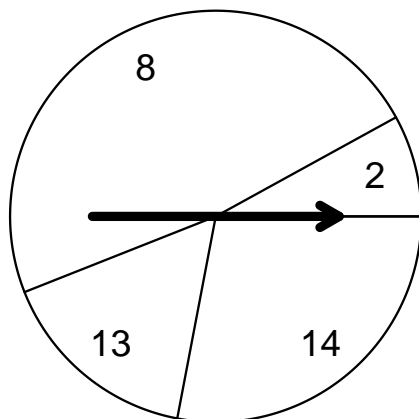
The spinner's probability distribution is shown below.

i	x_i	p_i
1	6	0.23
2	12	0.39
3	14	0.11
4	20	0.27

- (a) Determine the mean of the probability distribution by using $\mu = \sum p_i x_i$.
- (b) Determine the standard deviation of the probability distribution by using $\sigma = \sqrt{\sum p_i (x_i - \mu)^2}$.

5. Problem

The spinner below will be used to generate a sample.



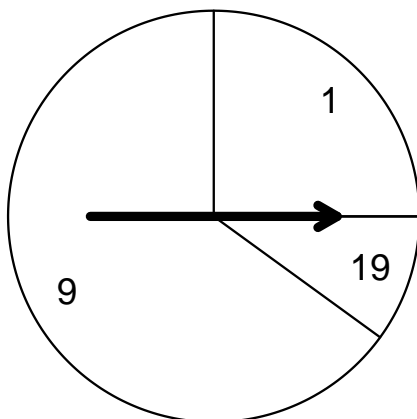
The spinner's probability distribution is shown below.

i	x_i	p_i
1	2	0.08
2	8	0.48
3	13	0.16
4	14	0.28

- (a) Determine the mean of the probability distribution by using $\mu = \sum p_i x_i$.
- (b) Determine the standard deviation of the probability distribution by using $\sigma = \sqrt{\sum p_i (x_i - \mu)^2}$.

6. Problem

The spinner below will be used to generate a sample.



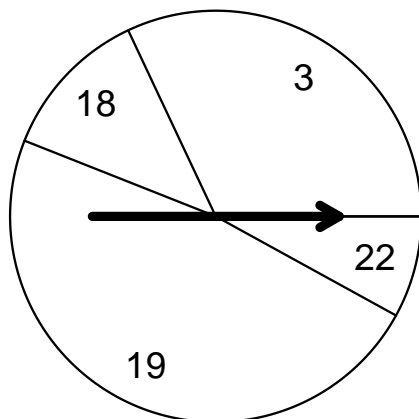
The spinner's probability distribution is shown below.

i	x_i	p_i
1	1	0.25
2	9	0.65
3	19	0.1

- (a) Determine the mean of the probability distribution by using $\mu = \sum p_i x_i$.
- (b) Determine the standard deviation of the probability distribution by using $\sigma = \sqrt{\sum p_i (x_i - \mu)^2}$.

7. Problem

The spinner below will be used to generate a sample.



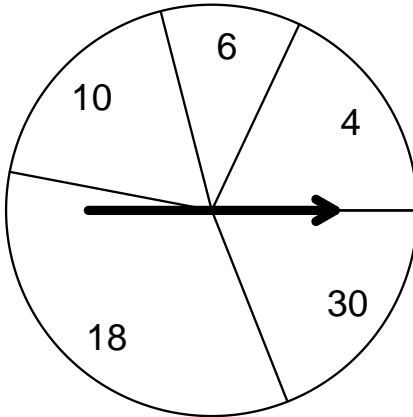
The spinner's probability distribution is shown below.

i	x_i	p_i
1	3	0.32
2	18	0.12
3	19	0.48
4	22	0.08

- (a) Determine the mean of the probability distribution by using $\mu = \sum p_i x_i$.
- (b) Determine the standard deviation of the probability distribution by using $\sigma = \sqrt{\sum p_i (x_i - \mu)^2}$.

8. Problem

The spinner below will be used to generate a sample.



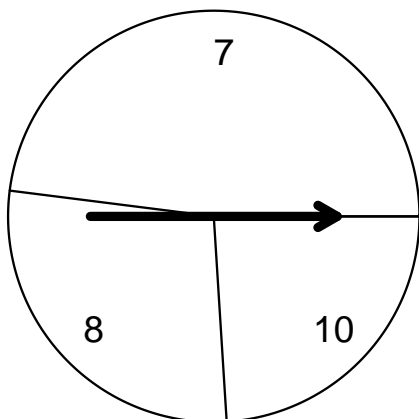
The spinner's probability distribution is shown below.

i	x_i	p_i
1	4	0.18
2	6	0.11
3	10	0.18
4	18	0.34
5	30	0.19

- (a) Determine the mean of the probability distribution by using $\mu = \sum p_i x_i$.
- (b) Determine the standard deviation of the probability distribution by using $\sigma = \sqrt{\sum p_i (x_i - \mu)^2}$.

9. Problem

The spinner below will be used to generate a sample.



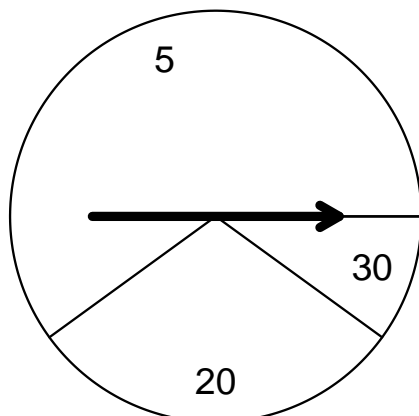
The spinner's probability distribution is shown below.

i	x_i	p_i
1	7	0.48
2	8	0.28
3	10	0.24

- (a) Determine the mean of the probability distribution by using $\mu = \sum p_i x_i$.
- (b) Determine the standard deviation of the probability distribution by using $\sigma = \sqrt{\sum p_i (x_i - \mu)^2}$.

10. Problem

The spinner below will be used to generate a sample.



The spinner's probability distribution is shown below.

i	x_i	p_i
1	5	0.6
2	20	0.3
3	30	0.1

- (a) Determine the mean of the probability distribution by using $\mu = \sum p_i x_i$.
- (b) Determine the standard deviation of the probability distribution by using $\sigma = \sqrt{\sum p_i (x_i - \mu)^2}$.

1. Make a table.

x_i	p_i	$p_i x_i$	$x_i - \mu$	$(x_i - \mu)^2$	$p_i(x_i - \mu)^2$
7	0.12	0.84	-9	81	9.72
16	0.52	8.32	0	0	0
19	0.36	6.84	3	9	3.24
=====	=====	=====	=====	=====	=====
$\sum p_i x_i = 16$			$\sum p_i(x_i - \mu)^2 = 12.96$		
$\mu = 16$			$\sigma = \sqrt{\sum p_i(x_i - \mu)^2} = 3.6$		

(a) $\mu = 16$ (b) $\sigma = 3.6$

2. Make a table.

x_i	p_i	$p_i x_i$	$x_i - \mu$	$(x_i - \mu)^2$	$p_i(x_i - \mu)^2$
8	0.15	1.2	-9	81	12.15
14	0.33	4.62	-3	9	2.97
20	0.39	7.8	3	9	3.51
26	0.13	3.38	9	81	10.53
=====	=====	=====	=====	=====	=====
$\sum p_i x_i = 17$			$\sum p_i(x_i - \mu)^2 = 29.16$		
$\mu = 17$			$\sigma = \sqrt{\sum p_i(x_i - \mu)^2} = 5.4$		

(a) $\mu = 17$ (b) $\sigma = 5.4$

3. Make a table.

x_i	p_i	$p_i x_i$	$x_i - \mu$	$(x_i - \mu)^2$	$p_i(x_i - \mu)^2$
8	0.06	0.48	-8	64	3.84
13	0.28	3.64	-3	9	2.52
18	0.66	11.88	2	4	2.64
=====	=====	=====	=====	=====	=====
$\sum p_i x_i = 16$			$\sum p_i(x_i - \mu)^2 = 9$		
$\mu = 16$			$\sigma = \sqrt{\sum p_i(x_i - \mu)^2} = 3$		

(a) $\mu = 16$ (b) $\sigma = 3$

4. Make a table.

x_i	p_i	$p_i x_i$	$x_i - \mu$	$(x_i - \mu)^2$	$p_i(x_i - \mu)^2$
6	0.23	1.38	-7	49	11.27

x_i	p_i	$p_i x_i$	$x_i - \mu$	$(x_i - \mu)^2$	$p_i(x_i - \mu)^2$
12	0.39	4.68	-1	1	0.39
14	0.11	1.54	1	1	0.11
20	0.27	5.4	7	49	13.23
=====	=====	=====	=====	=====	=====
$\sum p_i x_i = 13$			$\sum p_i(x_i - \mu)^2 = 25$		
$\mu = 13$			$\sigma = \sqrt{\sum p_i(x_i - \mu)^2} = 5$		

(a) $\mu = 13$ (b) $\sigma = 5$

5. Make a table.

x_i	p_i	$p_i x_i$	$x_i - \mu$	$(x_i - \mu)^2$	$p_i(x_i - \mu)^2$
2	0.08	0.16	-8	64	5.12
8	0.48	3.84	-2	4	1.92
13	0.16	2.08	3	9	1.44
14	0.28	3.92	4	16	4.48
=====	=====	=====	=====	=====	=====
$\sum p_i x_i = 10$			$\sum p_i(x_i - \mu)^2 = 12.96$		
$\mu = 10$			$\sigma = \sqrt{\sum p_i(x_i - \mu)^2} = 3.6$		

(a) $\mu = 10$ (b) $\sigma = 3.6$

6. Make a table.

x_i	p_i	$p_i x_i$	$x_i - \mu$	$(x_i - \mu)^2$	$p_i(x_i - \mu)^2$
1	0.25	0.25	-7	49	12.25
9	0.65	5.85	1	1	0.65
19	0.1	1.9	11	121	12.1
=====	=====	=====	=====	=====	=====
$\sum p_i x_i = 8$			$\sum p_i(x_i - \mu)^2 = 25$		
$\mu = 8$			$\sigma = \sqrt{\sum p_i(x_i - \mu)^2} = 5$		

(a) $\mu = 8$ (b) $\sigma = 5$

7. Make a table.

x_i	p_i	$p_i x_i$	$x_i - \mu$	$(x_i - \mu)^2$	$p_i(x_i - \mu)^2$
3	0.32	0.96	-11	121	38.72
18	0.12	2.16	4	16	1.92
19	0.48	9.12	5	25	12

x_i	p_i	$p_i x_i$	$x_i - \mu$	$(x_i - \mu)^2$	$p_i(x_i - \mu)^2$
22	0.08	1.76	8	64	5.12
=====	=====	=====	=====	=====	=====
$\sum p_i x_i = 14$			$\sum p_i(x_i - \mu)^2 = 57.76$		
$\mu = 14$			$\sigma = \sqrt{\sum p_i(x_i - \mu)^2} = 7.6$		

(a) $\mu = 14$ (b) $\sigma = 7.6$

8. Make a table.

x_i	p_i	$p_i x_i$	$x_i - \mu$	$(x_i - \mu)^2$	$p_i(x_i - \mu)^2$
4	0.18	0.72	-11	121	21.78
6	0.11	0.66	-9	81	8.91
10	0.18	1.8	-5	25	4.5
18	0.34	6.12	3	9	3.06
30	0.19	5.7	15	225	42.75
=====	=====	=====	=====	=====	=====
$\sum p_i x_i = 15$			$\sum p_i(x_i - \mu)^2 = 81$		
$\mu = 15$			$\sigma = \sqrt{\sum p_i(x_i - \mu)^2} = 9$		

(a) $\mu = 15$ (b) $\sigma = 9$

9. Make a table.

x_i	p_i	$p_i x_i$	$x_i - \mu$	$(x_i - \mu)^2$	$p_i(x_i - \mu)^2$
7	0.48	3.36	-1	1	0.48
8	0.28	2.24	0	0	0
10	0.24	2.4	2	4	0.96
=====	=====	=====	=====	=====	=====
$\sum p_i x_i = 8$			$\sum p_i(x_i - \mu)^2 = 1.44$		
$\mu = 8$			$\sigma = \sqrt{\sum p_i(x_i - \mu)^2} = 1.2$		

(a) $\mu = 8$ (b) $\sigma = 1.2$

10. Make a table.

x_i	p_i	$p_i x_i$	$x_i - \mu$	$(x_i - \mu)^2$	$p_i(x_i - \mu)^2$
5	0.6	3	-7	49	29.4
20	0.3	6	8	64	19.2
30	0.1	3	18	324	32.4
=====	=====	=====	=====	=====	=====

x_i	p_i	$p_i x_i$	$x_i - \mu$	$(x_i - \mu)^2$	$p_i (x_i - \mu)^2$
		$\sum p_i x_i = 12$			$\sum p_i (x_i - \mu)^2 = 81$
		$\mu = 12$			$\sigma = \sqrt{\sum p_i (x_i - \mu)^2} = 9$

(a) $\mu = 12$

(b) $\sigma = 9$