

Forecasts for week of 24 Sep 12

Mon24	States: ks mo ar ok ok										City: pns			
Name	PF	LatF	LonF	Max	Min	Dir	Spd	Nil	Lgt	Mdt	Hwy	Amt		
Taylor	0	39.11	91.47	86	64	6	4	10	0	0	0	0		
Durkin	0	39.17	90.84	85	60	7	9	10	0	0	0	0		
Thayer	99	0.00	0.00	0	0	0	0	0	0	0	0	0		
Briddell	3	38.76	90.34	84	61	5	5	10	0	0	0	0		
Mulholland	3	38.95	92.32	85	67	7	3	10	0	0	0	0		
Ballentine	2	37.90	93.70	86	60	3	3	10	0	0	0	0		
Pirraglia	0	0.00	0.00	86	69	5	5	10	0	0	0	0		
Russell	3	38.79	94.72	83	64	4	2	10	0	0	0	0		
Vuotto	2	39.53	91.67	87	65	6	4	10	0	0	0	0		
Steiger	3	39.33	93.16	85	65	5	3	10	0	0	0	0		
Bradtke	0	0.00	0.00	86	62	5	6	10	0	0	0	0		
Becker	4	38.78	91.16	84	63	7	6	9	1	0	0	1		
Kiely	99	0.00	0.00	0	0	0	0	0	0	0	0	0		
Apps	1	38.84	90.33	86	65	5	4	10	0	0	0	0		
Noll	4	37.76	90.43	84	62	0	0	10	0	0	0	0		
Barber	1	38.83	92.22	85	60	5	6	10	0	0	0	0		
Rabinowitz	6	38.93	90.43	84	63	4	4	10	0	0	0	0		
Speck	5	39.54	92.25	86	63	6	3	9	1	0	0	0		
Stahlman	99	0.00	0.00	0	0	0	0	0	0	0	0	0		
West	0	38.36	93.70	86	63	5	3	10	0	0	0	0		
Falkowski	1	38.90	92.32	86	59	4	6	9	1	0	0	0		
Budd	2	39.04	90.81	86	64	3	3	2	8	0	0	3		
Poreda	2	39.21	93.94	86	62	0	3	8	2	0	0	2		
Hecke	3	39.13	91.15	86	61	1	2	10	0	0	0	0		
Gilbert	3	39.29	92.00	86	66	2	4	8	2	0	0	1		
Wodzicki	2	37.47	93.62	85	62	7	2	10	0	0	0	0		
GFS	1	38.90	93.94	86	62	2	1	10	0	0	0	0		
NAM	1	39.35	93.60	85	62	6	3	9	1	0	0	0		
SREF	9	39.59	91.70	79	66	5	5	10	0	0	0	0		

Mon48	States: ks mo ar ok ok										City: pns			
Name	PF	LatF	LonF	Max	Min	Dir	Spd	Nil	Lgt	Mdt	Hwy	Amt		
Taylor	4	37.97	94.37	87	67	11	5	10	0	0	0	0		
Durkin	3	36.38	97.05	86	65	12	8	10	0	0	0	0		
Thayer	99	0.00	0.00	0	0	0	0	0	0	0	0	0		
Briddell	5	36.79	95.45	84	64	12	8	10	0	0	0	0		
Mulholland	5	36.75	95.98	84	68	11	5	9	1	0	0	1		
Ballentine	4	38.60	93.60	85	67	13	7	9	1	0	0	0		
Pirraglia	0	0.00	0.00	84	70	12	5	10	0	0	0	0		
Russell	7	36.29	97.51	85	66	11	3	9	1	0	0	1		
Vuotto	4	37.27	94.50	86	68	10	5	9	1	0	0	1		
Steiger	8	37.72	95.26	85	68	11	5	9	1	0	0	0		
Bradtke	5	39.08	95.62	86	68	14	7	10	0	0	0	0		
Becker	6	37.77	94.88	82	69	11	5	9	1	0	0	1		
Kiely	99	0.00	0.00	0	0	0	0	0	0	0	0	0		
Apps	1	36.93	96.77	88	68	12	3	9	1	0	0	0		
Noll	6	37.09	95.57	85	67	14	7	10	0	0	0	0		
Barber	1	38.93	90.43	85	69	10	4	10	0	0	0	0		
Rabinowitz	5	37.67	95.49	81	67	10	5	10	0	0	0	0		
Speck	7	37.68	95.45	86	69	12	7	9	1	0	0	0		

Stahlman	99	0.00	0.00	0	0	0	0	0	0	0	0	0	0
West	1	36.77	98.67	85	68	12	7	10	0	0	0	0	0
Falkowski	7	38.90	92.32	85	67	10	8	8	2	0	0	0	0
Budd	0	0.00	0.00	87	65	8	3	2	8	0	0	8	
Poreda	8	38.36	94.61	87	67	10	5	7	3	0	0	2	
Hecke	4	39.06	90.90	85	64	8	13	10	0	0	0	0	
Gilbert	4	39.29	92.00	85	69	8	7	7	2	1	0	2	
Wodzicki	2	38.47	91.43	86	67	11	6	9	1	0	0	1	
GFS	2	38.72	93.90	85	68	13	8	9	1	0	0	0	
NAM	2	38.54	94.77	86	67	14	6	9	1	0	0	0	
SREF	5	38.67	90.48	81	72	10	6	10	0	0	0	0	

Tue24            States: ks mo ar ok ok            City: pns

Name	PF	LatF	LonF	Max	Min	Dir	Spd	Nil	Lgt	Mdt	Hwy	Amt
Taylor	3	37.02	96.77	85	65	15	4	9	1	0	0	0
Durkin	2	38.07	94.73	84	65	16	7	10	0	0	0	0
Thayer	6	38.74	91.34	83	68	8	9	10	0	0	0	0
Briddell	5	36.47	97.47	84	67	8	4	10	0	0	0	0
Mulholland	8	37.18	94.50	83	67	3	3	9	1	0	0	1
Ballentine	6	36.70	97.70	85	66	11	2	9	1	0	0	0
Pirraglia	5	37.65	95.45	84	67	11	6	10	0	0	0	0
Russell	6	36.11	98.18	81	70	10	2	9	1	0	0	1
Vuotto	7	37.04	94.47	85	69	9	6	10	0	0	0	0
Steiger	7	35.67	98.64	85	66	13	5	9	1	0	0	0
Bradtke	6	37.22	93.38	85	68	14	7	10	0	0	0	0
Becker	3	37.64	95.82	84	71	10	2	9	1	0	0	1
Kiely	99	0.00	0.00	0	0	0	0	0	0	0	0	0
Apps	2	34.90	97.97	88	67	15	6	9	1	0	0	0
Noll	8	36.34	97.92	85	67	9	4	10	0	0	0	0
Barber	5	38.76	90.37	83	69	9	8	2	8	0	0	2
Rabinowitz	6	36.76	96.01	85	69	12	5	5	5	0	0	1
Speck	8	37.22	95.51	86	68	12	4	10	0	0	0	0
Stahlman	99	0.00	0.00	0	0	0	0	0	0	0	0	0
West	6	36.47	97.98	84	67	12	4	10	0	0	0	0
Falkowski	99	0.00	0.00	0	0	0	0	0	0	0	0	0
Budd	2	37.76	97.60	86	63	8	3	10	0	0	0	0
Poreda	2	35.40	96.87	85	68	10	5	10	0	0	0	0
Hecke	6	36.93	94.72	84	67	11	6	10	0	0	0	0
Gilbert	7	35.63	97.36	86	66	11	4	9	1	0	0	0
Wodzicki	99	0.00	0.00	0	0	0	0	0	0	0	0	0
GFS	3	37.42	97.89	86	68	11	6	10	0	0	0	0
NAM	3	38.47	95.44	85	67	15	3	9	1	0	0	0
SREF	2	37.42	98.25	80	71	12	4	10	0	0	0	0

Tue48            States: ks mo ar ok ok            City: pns

Name	PF	LatF	LonF	Max	Min	Dir	Spd	Nil	Lgt	Mdt	Hwy	Amt
Taylor	3	35.57	95.93	88	66	13	3	7	3	0	0	5
Durkin	3	35.70	95.80	87	69	13	5	9	1	0	0	1
Thayer	7	37.21	95.04	79	73	14	8	7	3	0	0	5
Briddell	7	36.22	96.59	85	70	14	6	9	1	0	0	1
Mulholland	4	36.20	95.88	84	71	16	5	9	1	0	0	1
Ballentine	4	35.79	98.60	86	70	13	8	9	1	0	0	0
Pirraglia	5	34.52	90.96	86	68	9	5	10	0	0	0	0
Russell	8	35.79	97.13	82	71	11	2	9	1	0	0	1

Vuotto	5	37.43	95.34	87	72	12	7	7	3	0	0	1
Steiger	8	35.67	98.64	86	69	13	7	8	2	0	0	0
Bradtke	7	37.22	93.38	86	70	13	7	9	1	0	0	0
Becker	5	36.03	96.06	85	72	12	7	9	1	0	0	1
Kiely	99	0.00	0.00	0	0	0	0	0	0	0	0	0
Apps	4	38.65	90.63	89	68	16	7	2	7	1	0	3
Noll	7	37.17	97.04	86	70	13	9	10	0	0	0	0
Barber	1	36.20	95.88	83	69	13	9	2	8	0	0	4
Rabinowitz	4	34.79	96.67	85	72	13	10	0	10	0	0	3
Speck	7	36.42	95.84	86	70	13	8	7	3	0	0	1
Stahlman	99	0.00	0.00	0	0	0	0	0	0	0	0	0
West	4	36.82	96.38	87	69	13	9	8	2	0	0	1
Falkowski	99	0.00	0.00	0	0	0	0	0	0	0	0	0
Budd	0	0.00	0.00	87	67	12	7	10	0	0	0	0
Poreda	4	35.40	96.87	87	70	13	8	7	3	0	0	3
Hecke	4	37.64	95.28	88	67	13	9	8	2	0	0	2
Gilbert	4	38.47	90.70	87	67	13	7	4	6	0	0	4
Wodzicki	99	0.00	0.00	0	0	0	0	0	0	0	0	0
GFS	8	37.11	95.96	87	70	13	9	9	1	0	0	7
NAM	2	36.43	95.61	85	69	13	8	9	1	0	0	0
SREF	7	37.61	95.75	81	72	13	8	9	1	0	0	1

Thu24		States: ks mo ar ok ok						City: pns					
Name	PF	LatF	LonF	Max	Min	Dir	Spd	Nil	Lgt	Mdt	Hwy	Amt	
Taylor	3	34.52	93.41	87	72	19	4	10	0	0	0	0	
Durkin	3	43.34	96.04	86	74	20	5	10	0	0	0	0	
Thayer	4	37.63	101.37	87	70	27	3	9	1	0	0	1	
Briddell	2	34.29	96.88	86	71	6	4	10	0	0	0	0	
Mulholland	7	36.69	101.50	87	71	36	3	10	0	0	0	0	
Ballentine	5	37.50	99.00	88	71	2	2	8	2	0	0	0	
Pirraglia	4	37.67	100.76	86	74	20	4	10	0	0	0	0	
Russell	6	37.14	100.39	86	73	20	2	9	1	0	0	1	
Vuotto	8	34.72	92.23	85	70	19	4	10	0	0	0	0	
Steiger	8	37.31	101.13	87	71	17	2	9	1	0	0	0	
Bradtke	5	34.89	95.78	86	70	18	6	10	0	0	0	0	
Becker	6	34.28	93.93	85	71	19	5	9	1	0	0	1	
Kiely	7	34.64	92.85	84	73	0	0	10	0	0	0	0	
Apps	7	34.54	93.58	87	69	19	3	10	0	0	0	0	
Noll	3	36.29	99.78	86	70	0	0	10	0	0	0	0	
Barber	99	0.00	0.00	0	0	0	0	0	0	0	0	0	
Rabinowitz	10	35.29	95.09	85	68	0	0	10	0	0	0	0	
Speck	4	37.35	101.07	86	70	4	2	10	0	0	0	0	
Stahlman	99	0.00	0.00	0	0	0	0	0	0	0	0	0	
West	9	36.72	101.93	87	70	0	0	10	0	0	0	0	
Falkowski	99	0.00	0.00	0	0	0	0	0	0	0	0	0	
Budd	99	0.00	0.00	0	0	0	0	0	0	0	0	0	
Poreda	6	36.84	102.63	84	73	18	3	8	2	0	0	1	
Hecke	99	0.00	0.00	0	0	0	0	0	0	0	0	0	
Gilbert	8	38.13	101.34	87	69	0	0	10	0	0	0	0	
Wodzicki	99	0.00	0.00	0	0	0	0	0	0	0	0	0	
GFS	1	35.94	96.26	87	70	36	2	10	0	0	0	0	
NAM	1	34.61	93.11	85	72	17	3	9	1	0	0	0	
SREF	4	36.67	102.65	81	74	24	4	9	1	0	0	0	

Thu48		States: ks mo ar ok ok						City: pns					
Name	PF	LatF	LonF	Max	Min	Dir	Spd	Nil	Lgt	Mdt	Hwy	Amt	
Taylor	2	34.13	95.89	83	73	17	6	4	2	3	1	15	
Durkin	2	34.74	94.77	84	75	16	3	7	2	1	0	8	
Thayer	4	34.75	97.75	81	70	16	3	7	3	0	0	3	
Briddell	7	34.29	96.88	82	72	17	7	9	1	0	0	1	
Mulholland	3	35.45	97.51	83	71	18	8	8	2	0	0	2	
Ballentine	2	34.40	96.00	84	71	15	7	8	2	0	0	0	
Pirraglia	0	0.00	0.00	85	72	18	3	8	2	0	0	2	
Russell	4	34.50	96.85	81	70	19	3	2	7	1	0	10	
Vuotto	6	34.29	97.02	84	71	15	5	2	8	0	0	1	
Steiger	6	34.26	97.23	84	70	16	5	5	4	1	0	3	
Bradtke	6	34.89	95.78	84	70	17	3	8	2	0	0	0	
Becker	6	34.40	95.68	85	73	17	5	8	2	0	0	2	
Kiely	4	33.85	94.46	81	73	17	5	5	5	0	0	3	
Apps	6	34.79	96.67	84	71	17	7	3	7	0	0	3	
Noll	7	34.88	95.78	84	72	16	6	7	3	0	0	0	
Barber	99	0.00	0.00	0	0	0	0	0	0	0	0	0	
Rabinowitz	0	32.65	93.30	85	72	17	5	0	10	0	0	3	
Speck	5	34.92	95.39	83	71	15	6	7	3	0	0	1	
Stahlman	99	0.00	0.00	0	0	0	0	0	0	0	0	0	
West	3	34.28	97.86	86	72	15	6	6	4	0	0	1	
Falkowski	99	0.00	0.00	0	0	0	0	0	0	0	0	0	
Budd	99	0.00	0.00	0	0	0	0	0	0	0	0	0	
Poreda	2	34.20	96.09	83	74	15	5	4	6	0	0	3	
Hecke	99	0.00	0.00	0	0	0	0	0	0	0	0	0	
Gilbert	3	34.75	97.00	87	70	18	6	7	3	0	0	2	
Wodzicki	99	0.00	0.00	0	0	0	0	0	0	0	0	0	
GFS	1	35.89	95.02	84	70	15	6	9	1	0	0	5	
NAM	1	34.32	96.57	82	71	15	6	8	2	0	0	0	
SREF	3	37.60	97.75	81	74	10	5	7	3	0	0	1	

Local Game Consensus of 23 for Mon24                      Verification  
PNS 85.3 63.0 49.3 9.35 0.65 0.00 0.00 0.00 84 61 3 4 10 0 0 0 0.00  
Storm Game for ks-mo-ar-ok-ok Consensus of 21                      Verification  
2.17 38.84 92.03                      0  
ErCn(raw): Wind = 0.684 Prob = 0.425 Amnt = 0.304 Max = 1.348 Min = 2.043  
ErCn(raw): PrbS = 4.726 LocS = 0.000

Local Game Consensus of 23 for Mon48                      Verification  
PNS 85.2 67.3 110.6 8.91 1.04 0.04 0.00 0.01 84 67 15 7 10 0 0 0 0.00  
Storm Game for ks-mo-ar-ok-ok Consensus of 21                      Verification  
4.22 37.80 94.66                      10  
ErCn(raw): Wind = 2.331 Prob = 1.183 Amnt = 0.739 Max = 1.174 Min = 0.261  
ErCn(raw): PrbS = 33.439 LocS = 0.623

Local Game Consensus of 22 for Tue24                      Verification  
PNS 84.5 67.3 110.4 8.91 0.95 0.00 0.00 0.00 84 67 5 3 10 0 0 0 0.00  
Storm Game for ks-mo-ar-ok-ok Consensus of 22                      Verification  
5.27 36.89 95.94                      10  
ErCn(raw): Wind = 1.966 Prob = 0.911 Amnt = 0.273 Max = 0.545 Min = 0.273  
ErCn(raw): PrbS = 22.347 LocS = 4.820

Local Game Consensus of 22 for Tue48                      Verification  
PNS 85.7 69.5 130.7 7.0 7.27 2.68 0.05 0.00 0.02 88 70 12 12 0 10 0 0 0.03  
Storm Game for ks-mo-ar-ok-ok Consensus of 21                      Verification  
4.77 36.42 95.46                      10  
ErCn(raw): Wind = 2.809 Prob = 52.895 Amnt = 1.318 Max = 2.273 Min = 0.455  
ErCn(raw): PrbS = 27.324 LocS = 4.134

Local Game Consensus of 20 for Thu24                      Verification  
PNS 86.1 71.0 187.2 6.9 9.60 0.40 0.00 0.00 0.00 87 71 17 2 10 0 0 0 0.00  
Storm Game for ks-mo-ar-ok-ok Consensus of 20                      Verification  
5.75 36.49 98.03                      10  
ErCn(raw): Wind = 0.391 Prob = 0.160 Amnt = 0.200 Max = 0.900 Min = 0.000  
ErCn(raw): PrbS = 18.063 LocS = 39.972

Local Game Consensus of 20 for Thu48                      Verification  
PNS 83.7 71.7 165.5 5.2 5.75 3.90 0.30 0.05 0.03 85 72 14 5 10 0 0 0 0.00  
Storm Game for ks-mo-ar-ok-ok Consensus of 19                      Verification  
3.90 34.44 96.21                      0  
ErCn(raw): Wind = 1.127 Prob = 18.188 Amnt = 3.150 Max = 1.350 Min = 0.350  
ErCn(raw): PrbS = 15.210 LocS = 0.000

Scaling Summary: (Week of 24 Sep 12)

ErrAmtCons = 5.98 ErrPrbCons = 73.76 Prob Scale = 0.1500  
ErrTmpCons = 10.97 ErrPreCons = 17.05 Prcp Scale = 0.6435  
ErrWndCons = 9.31 Wind Scale = 0.3536 Local Week = 25.23

Scaling Summary for Storm Game

ErrPSTCons = 121.11 ErrLSTCons = 49.55 Week Scale = 2.9721  
Location vs Prb Scale = 0.3273 Local vs Storm Game Scale = 0.2829

Fcst Ladder: (Week of 24 Sep 12) through Period Thu48

Rank	Forecaster	Total	Wind	Prob	Amnt	Max	Min	STPrb	STLoc
1	West	124.5	8.8	23.0	5.7	14.9	14.9	39.4	18.0
2	Steiger	128.1	10.0	26.7	11.5	17.8	26.7	18.2	17.3
3	Speck	136.2	10.4	17.2	5.7	32.7	20.8	29.7	19.7
4	Noll	141.7	8.4	31.3	5.7	17.8	5.9	39.4	33.2
5	Ballentine	147.6	9.0	26.1	5.7	23.8	8.9	33.3	40.8
6	Mulholland	148.6	14.7	25.0	11.5	23.8	26.7	25.3	21.6
7	Consensus	150.0	9.8	21.2	11.4	22.6	10.1	33.3	41.7
8	Poreda	157.8	9.5	29.3	15.3	35.7	17.8	35.2	15.0
9	Gilbert	182.2	12.7	11.5	11.5	23.8	44.6	28.3	49.8
10	Bridgell	183.6	12.6	23.5	5.7	20.8	8.9	49.8	62.2
11	Thayer	186.8	14.6	17.6	14.5	52.9	31.1	36.9	19.3
12	Bradtke	189.1	12.8	24.4	5.7	26.7	17.8	30.6	71.1
13	Hecke	195.7	15.1	26.3	11.5	18.9	19.4	40.4	64.1
14	Pirraglia	201.3	13.3	29.8	9.6	14.9	47.6	51.2	35.0
15	Rabinowitz	204.5	9.9	35.9	7.7	26.7	26.7	31.1	66.5
16	Falkowski	206.2	14.6	32.5	14.2	31.5	10.7	37.0	65.7
17	GFS	208.7	10.8	23.8	17.2	20.8	17.8	55.0	63.2
18	Russell	211.3	13.2	42.7	28.7	47.6	35.7	19.3	24.2
19	Wodzicki	216.6	13.9	31.3	16.1	31.5	7.8	53.0	63.0
20	Stahlman	225.0	14.7	31.7	17.2	33.8	15.1	50.0	62.5
21	Becker	225.8	11.6	25.5	15.3	20.8	32.7	43.5	76.3
22	Barber	237.0	11.9	27.4	15.3	33.8	19.4	65.5	63.6
23	Vuotto	239.1	10.7	32.7	7.7	29.7	32.7	31.4	94.3
24	NAM	244.0	8.1	25.5	5.7	35.7	11.9	71.6	85.5
25	Kiely	257.2	14.8	31.0	13.3	44.6	22.4	43.1	87.9
26	Durkin	264.1	17.3	26.1	19.1	17.8	35.7	59.2	88.9
27	Taylor	264.7	14.2	29.6	32.5	23.8	32.7	51.5	80.4
28	Apps	266.1	14.2	16.1	5.7	35.7	29.7	62.5	102.2
29	SREF	270.4	12.5	26.1	5.7	86.2	62.4	61.7	15.8
30	Budd	335.7	10.1	73.3	36.4	33.8	37.2	87.5	57.5

Semester Ranking for week of 24 Sep 12

Ladder includes forecasters with at least 80.% participation

Rank	Forecaster	Total	Wind	Prob	Amnt	Max	Min	H2Prb	H2Loc	#F
1	Steiger	425.8	35.6	62.2	45.3	43.0	58.8	67.3	113.7	20
2	Speck	489.2	35.0	59.0	34.4	63.3	45.2	124.4	127.9	20
3	West	490.0	34.2	67.7	41.9	54.6	56.3	111.8	123.5	20
4	Consensus	500.0	32.6	63.4	45.3	59.9	48.8	111.1	138.9	20
5	Noll	515.3	33.8	85.7	36.7	66.9	41.6	105.8	144.7	20
6	Ballentine	551.1	31.6	70.0	30.9	47.5	51.3	152.5	167.4	20
7	Bradtke	553.5	42.5	71.6	34.4	57.9	50.6	101.6	194.9	20
8	Bridgell	557.9	41.2	83.5	46.5	53.6	49.4	93.6	190.0	20
9	Mulholland	566.7	40.3	73.7	57.4	62.1	79.1	126.7	127.4	20
10	Poreda	588.0	33.3	70.6	49.4	92.6	68.3	125.8	148.0	18
11	Russell	605.2	45.2	82.2	60.4	90.9	75.9	101.6	149.1	20
12	NAM	617.9	35.4	61.6	32.4	68.2	36.3	193.4	190.5	20
13	Thayer	622.3	40.6	60.5	44.8	109.6	89.7	135.9	141.3	18
14	Barber	629.0	33.5	67.0	51.9	69.0	79.5	166.9	161.2	18
15	Vuotto	639.8	37.0	88.7	58.6	65.1	83.7	92.0	214.7	20
16	Gilbert	642.4	35.1	48.4	38.4	73.5	130.0	137.0	179.9	20
17	GFS	644.2	36.6	80.3	47.0	83.7	59.7	144.8	192.0	20
18	Taylor	653.5	37.8	66.5	70.2	51.5	80.5	161.6	185.3	20
19	Pirraglia	699.9	45.7	88.7	29.4	69.7	108.1	194.2	164.2	20
20	Durkin	702.9	50.4	75.4	54.8	61.6	81.6	178.5	200.6	20
21	Becker	710.9	40.6	70.4	49.6	91.4	114.3	149.0	195.6	20
22	Rabinowitz	722.4	34.6	67.7	34.2	136.8	56.7	158.9	233.7	20
23	SREF	742.3	38.7	59.3	35.6	174.3	106.0	203.8	124.7	20
24	Budd	760.5	33.2	119.5	76.0	66.4	94.8	216.7	153.9	16
25	Apps	761.4	38.7	85.2	59.3	93.1	76.9	180.7	227.6	20
26	Kiely	765.8	43.0	81.5	54.1	139.4	122.4	124.7	200.8	16