

7.3 Exercises



Football In Exercises 1–3, describe the pattern in the table. (See Examples 1 and 2.)

1. The table shows the heights of a football at various times after a punt.

Time (sec)	0	0.5	1	1.5	2	2.5	3
Height (ft)	3	34	57	72	79	78	69



2. The table shows the distances gained by a running back after various numbers of rushing attempts.

Rushing attempts	0	3	6	9	12	15	18
Distance (yd)	0	12.6	25.2	37.8	50.4	63	75.6

3. The table shows the heights of a football at various times after a field goal attempt.

Time (sec)	0	0.5	1	1.5	2	2.5	3
Height (ft)	0	21	34	39	36	25	6

4. **Punt** In Exercise 1, extend the pattern to find the height of the football after 4 seconds. (See Example 1.)

5. **Passing a Football** The table shows the heights of a football at various times after a quarterback passes it to a receiver. Use a spreadsheet to graph the data. Describe the graph. (See Example 2.)



Time (sec)	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5
Height (ft)	6	15	22	27	30	31	30	27	22	15	6



6. **Graph** Use the graph in Exercise 5 to determine how long the height of the football increases.