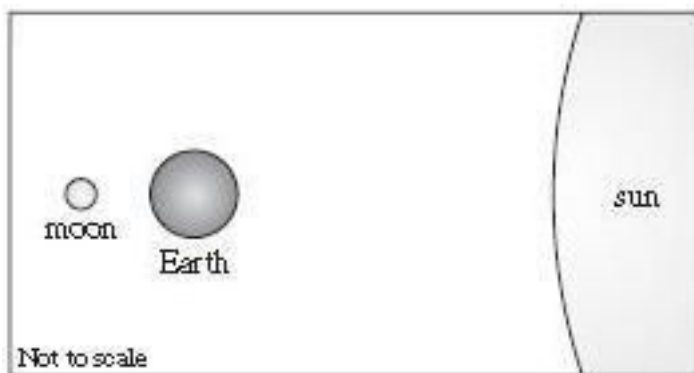


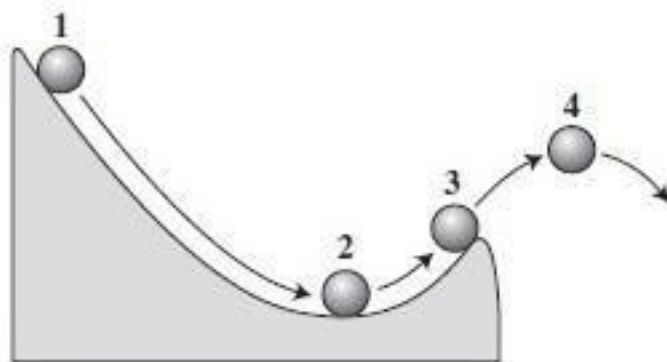
- 1 The diagram below shows the relative positions of Earth, the moon, and the sun.



Which phase of the moon can be observed from Earth when these bodies are positioned in this way?

- A full moon
- B new moon
- C first quarter
- D waxing gibbous

- 2 The diagram below shows four positions of a ball rolling down and off a curved ramp.



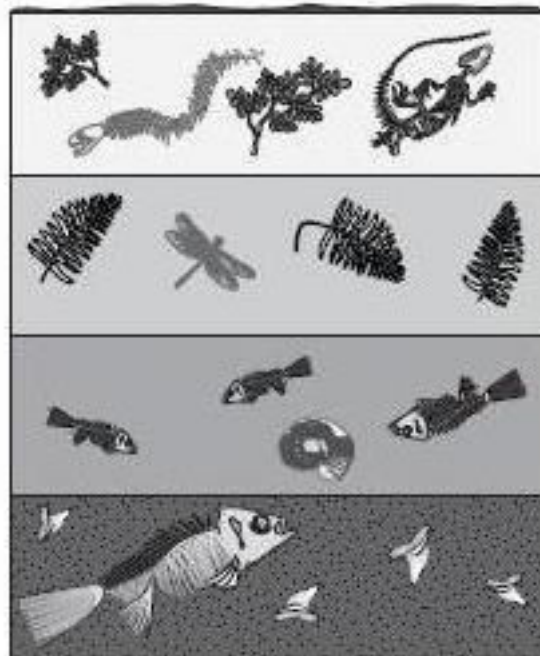
At which position is the kinetic energy of the ball being converted into potential energy?

- A position 1
- B position 2
- C position 3
- D position 4

- 3 When investigating a new cancer-fighting drug, medical researchers give some of the subjects a pill that contains the drug. Some other subjects are given a pill that does not contain the drug. The drug-free pill serves what purpose in the design of this investigation?

- A a control
- B an experimental variable
- C a separate trial
- D a qualitative comparison

- 4 The diagram below shows the undisturbed layers of rock found in an area and some of the fossils found in each layer.



Which describes how the environment in the area **most** likely changed over time?

- A from desert to lake
- B from river valley to forest
- C from ocean to desert
- D from grassland to coastal plain

5

The diagram below shows the Periodic Table of the Elements.

Periodic Table of the Elements

Group																		18
	1											13	14	15	16	17	2	
1	H 1.008																He 4.003	
2	Li 6.94	Be 9.01											B 10.81	C 12.01	N 14.01	O 16.00	F 19.00	Ne 20.18
3	Na 22.99	Mg 24.31											Al 26.98	Si 28.09	P 30.97	S 32.06	Cl 35.45	Ar 39.95
4	K 39.10	Ca 40.08	Sc 44.96	Ti 47.90	V 50.94	Cr 52.00	Mn 54.94	Fe 55.85	Co 58.93	Ni 58.70	Cu 63.55	Zn 65.38	Ga 69.72	Ge 72.59	As 74.92	Se 78.96	Br 79.90	Kr 83.80
5	Rb 85.47	Sr 87.62	Y 88.91	Zr 91.22	Nb 92.91	Mo 95.94	Tc (97)	Ru 101.07	Rh 102.91	Pd 106.4	Ag 107.87	Cd 112.41	In 114.82	Sn 118.69	Sb 121.75	Te 127.60	I 126.90	Xe 131.30
6	Cs 132.91	Ba 137.33	*La 138.91	Hf 178.49	Ta 180.95	W 183.85	Re 186.21	Os 190.2	Ir 192.22	Pt 195.09	Au 196.97	Hg 200.59	Tl 204.37	Pb 207.2	Bi 208.98	Po (209)	At (210)	Rn (222)
7	Fr (223)	Ra 226.03	**Ac (227)	Rf (257)	Db (260)	Sg (263)	Bh (266)	Hs (285)	Mt (266)	—	—	—						

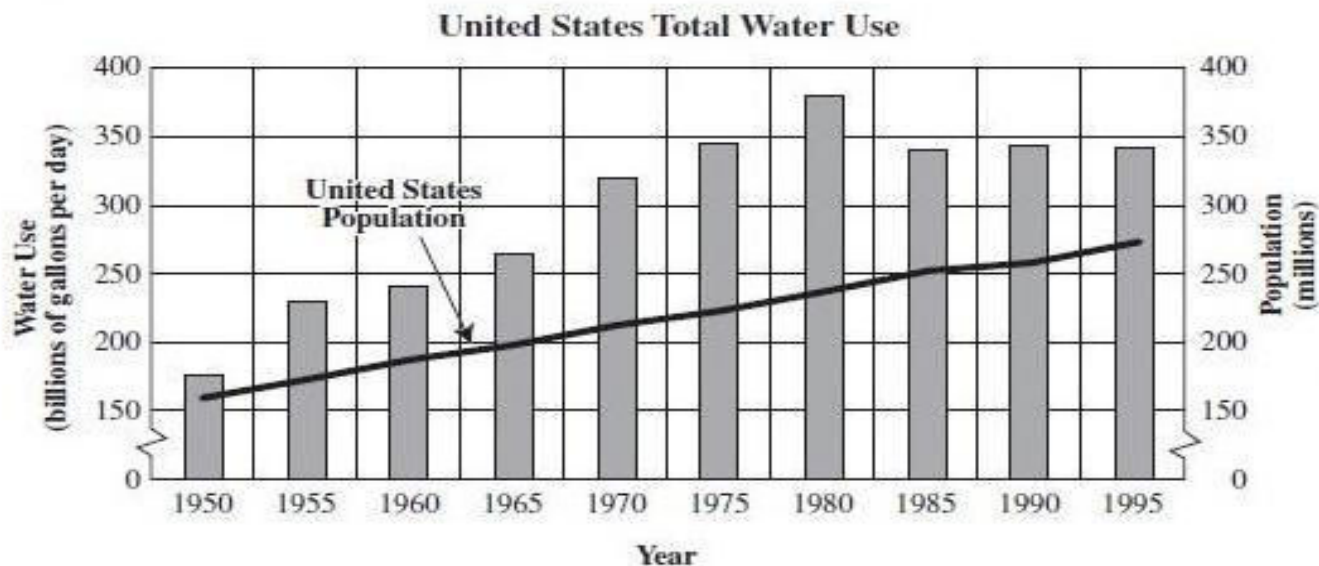
*Lanthanide Series	6	Ce 140.12	Pr 140.91	Nd 144.24	Pm (147)	Sm 150.4	Eu 151.96	Gd 157.25	Tb 158.93	Dy 162.50	Ho 164.93	Er 167.26	Tm 168.93	Yb 173.04	Lu 174.97
**Actinide Series	7	Th 232.04	Pa 231.04	U 238.03	Np 237.05	Pu (244)	Am (243)	Cm (247)	Bk (247)	Cf (251)	Es (254)	Fm (257)	Md (258)	No (259)	Lr (260)

Based on its location in the periodic table, which element in the table is **least** reactive?

- A Li
- B F
- C Ca
- D Kr

6

The graph below shows the United States population and the total water consumption in the United States from 1950 to 1995.



Based on the graph, which statement is a fact?

- A People used too much water between 1970 and 1985.
- B People have been finding better uses for water since 1985.
- C The average number of people who used water decreased after 1985.
- D The average amount of water each person used was lower in 1995 than in 1985.

Answers:

1. A

2. C

3. A

4. C

5. D

6. D