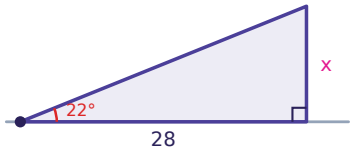
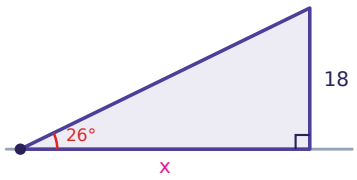
Task card 1 — Angles of Elevation & Depression

You stand 28 ft from the base of a flagpole. The angle of elevation to the top of the flagpole is 22°. How tall is the flagpole?



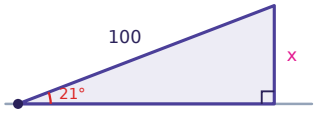
Task card 2 — Angles of Elevation & Depression

The top of a 18 m tower is seen from a point on the ground at an angle of elevation of 26°. How far is the point from the base of the tower?



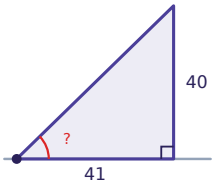
Task card 3 — Angles of Elevation & Depression

A kite string is 100 ft long and makes an angle of elevation of 21° with the ground. How high is the kite?



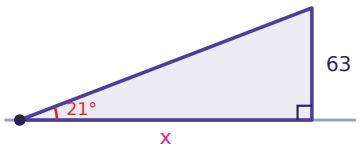
Task card 4 — Angles of Elevation & Depression

A ramp rises 40 ft over a horizontal distance of 41 ft. Find its angle of elevation.



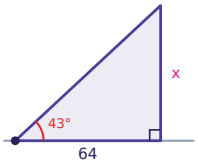
Task card 5 — Angles of Elevation & Depression

The top of a 63 m tower is seen from a point on the ground at an angle of elevation of 21°. How far is the point from the base of the tower?



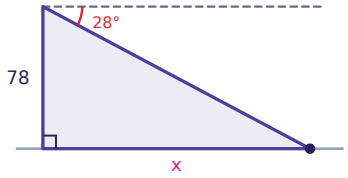
Task card 6 — Angles of Elevation & Depression

You stand 64 ft from the base of a cliff. The angle of elevation to the top of the cliff is 43°. How tall is the cliff?



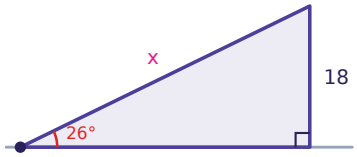
Task card 7 — Angles of Elevation & Depression

From the top of a 78 ft lighthouse, the angle of depression to a boat is 28°. How far is the boat from the base of the lighthouse?



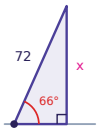
Task card 8 — Angles of Elevation & Depression

A ladder leans against a wall and makes a 26° angle with the ground. The top of the ladder is 18 ft above the ground. How long is the ladder?



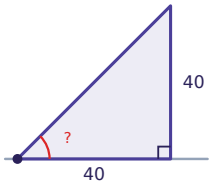
Task card 9 — Angles of Elevation & Depression

A kite string is 72 ft long and makes an angle of elevation of 66° with the ground. How high is the kite?



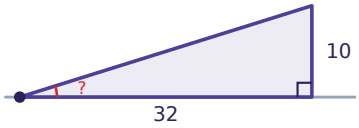
Task card 10 — Angles of Elevation & Depression

A ramp rises 40 ft over a horizontal distance of 40 ft. Find its angle of elevation.



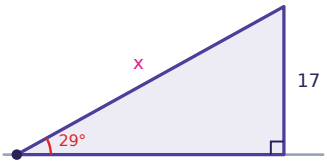
Task card 11 — Angles of Elevation & Depression

A ramp rises 10 ft over a horizontal distance of 32 ft. Find its angle of elevation.



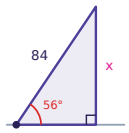
Task card 12 — Angles of Elevation & Depression

A ladder leans against a wall and makes a 29° angle with the ground. The top of the ladder is 17 ft above the ground. How long is the ladder?



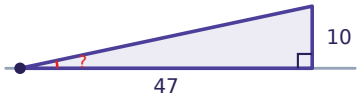
Task card 13 Angles of Elevation & Depression

A kite string is 84 ft long and makes an angle of elevation of 56° with the ground. How high is the kite?



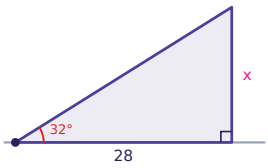
Task card 14 Angles of Elevation & Depression

A ramp rises 10 ft over a horizontal distance of 47 ft. Find its angle of elevation.



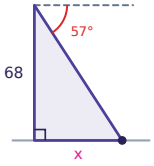
Task card 15 Angles of Elevation & Depression

You stand 28 ft from the base of a tree. The angle of elevation to the top of the tree is 32°. How tall is the tree?



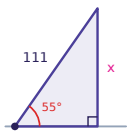
Task card 16 Angles of Elevation & Depression

From the top of a 68 ft cliff, the angle of depression to a boat is 57°. How far is the boat from the base of the cliff?



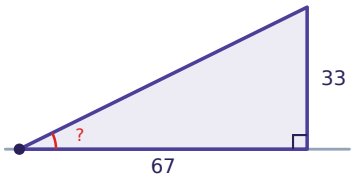
Task card 17 Angles of Elevation & Depression

A kite string is 111 ft long and makes an angle of elevation of 55° with the ground. How high is the kite?



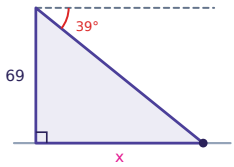
Task card 18 Angles of Elevation & Depression

A ramp rises 33 ft over a horizontal distance of 67 ft. Find its angle of elevation.



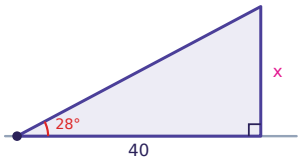
Task card 19 Angles of Elevation & Depression

From the top of a 69 ft cliff, the angle of depression to a boat is 39°. How far is the boat from the base of the cliff?



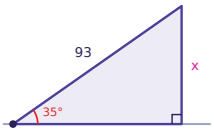
Task card 20 Angles of Elevation & Depression

You stand 40 ft from the base of a flagpole. The angle of elevation to the top of the flagpole is 28°. How tall is the flagpole?



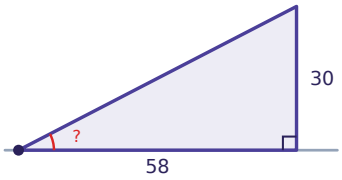
Task card 21 Angles of Elevation & Depression

A kite string is 93 ft long and makes an angle of elevation of 35° with the ground. How high is the kite?



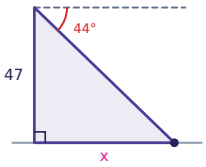
Task card 22 Angles of Elevation & Depression

A ramp rises 30 ft over a horizontal distance of 58 ft. Find its angle of elevation.



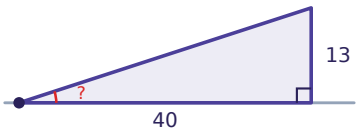
Task card 23 Angles of Elevation & Depression

From the top of a 47 ft cliff, the angle of depression to a boat is 44°. How far is the boat from the base of the cliff?



Task card 24 Angles of Elevation & Depression

A ramp rises 13 ft over a horizontal distance of 40 ft. Find its angle of elevation.



Angles of Elevation & Depression Task Cards

Recording sheet · Grade 10 · Round lengths to the nearest tenth and angles to the nearest degree. Do not include units.

Name: _____ Date: _____

Scan to check your answers

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Angles of Elevation & Depression Task Cards: Answer Key

Grade 10 · Medium

The answers online

1. 11.3	**2.** 36.9	**3.** 35.8
4. 44°	**5.** 164.1	**6.** 59.7
7. 146.7	**8.** 41.1	**9.** 65.8
10. 45°	**11.** 17°	**12.** 35.1
13. 69.6	**14.** 12°	**15.** 17.5
16. 44.2	**17.** 90.9	**18.** 26°
19. 85.2	**20.** 21.3	**21.** 53.3
22. 27°	**23.** 48.7	**24.** 18°