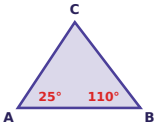
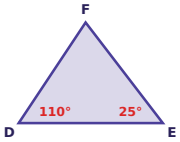
Task card 1 Angle-Angle Similarity & Similar T...

Are triangle ABC and triangle DEF similar? Write yes or no.

Triangle ABC



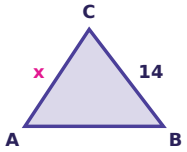
Triangle DEF



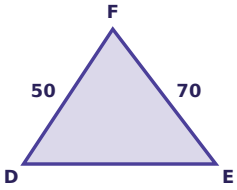
Task card 2 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF. Find x.

Triangle ABC



Triangle DEF



Task card 3 Angle-Angle Similarity & Similar T...

A pole that is 9 feet tall casts a shadow 15 feet long. At the same time, a tree that is 24 feet tall casts a shadow. The two triangles are similar. How many feet long is the shadow of the tree?

Task card 4 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF, with A matching D, B matching E and C matching F. Angle C is 45° and angle D is 105°. What is the measure of angle E?

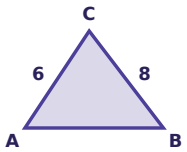
Task card 5 Angle-Angle Similarity & Similar T...

One right triangle has an acute angle of 31°. Another right triangle has an acute angle of 61°. Are the two triangles similar? Write yes or no.

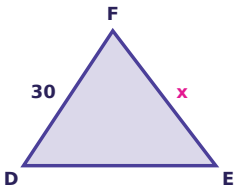
Task card 6 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF. Find x.

Triangle ABC



Triangle DEF



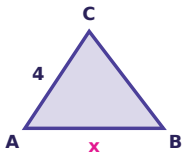
Task card 7 Angle-Angle Similarity & Similar T...

A fence post that is 3 feet tall casts a shadow 6 feet long. At the same time, a flagpole casts a shadow 18 feet long. The two triangles are similar. How many feet tall is the flagpole?

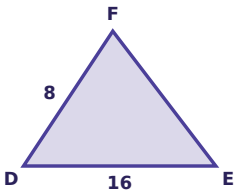
Task card 8 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF. Find x.

Triangle ABC



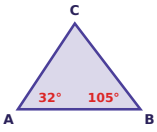
Triangle DEF



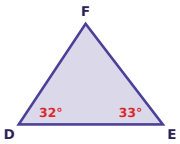
Task card 9 Angle-Angle Similarity & Similar T...

Are triangle ABC and triangle DEF similar? Write yes or no.

Triangle ABC



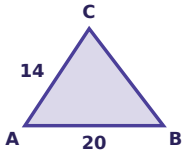
Triangle DEF



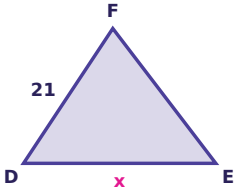
Task card 10 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF. Find x.

Triangle ABC

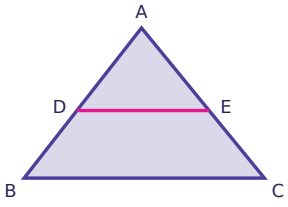


Triangle DEF



Task card 11 Angle-Angle Similarity & Similar T...

In triangle ABC, D is on side AB and E is on side AC, and DE is parallel to BC. AD = 10, AB = 16 and BC = 64. Find DE.



Task card 12 Angle-Angle Similarity & Similar T...

A fence post that is 8 feet tall casts a shadow 6 feet long. At the same time, a flagpole that is 28 feet tall casts a shadow. The two triangles are similar. How many feet long is the shadow of the flagpole?

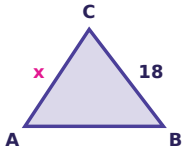
Task card 13 Angle-Angle Similarity & Similar T...

One right triangle has an acute angle of 43°. Another right triangle has an acute angle of 47°. Are the two triangles similar? Write yes or no.

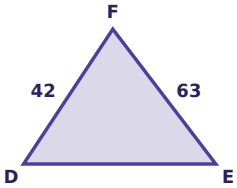
Task card 14 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF. Find x.

Triangle ABC

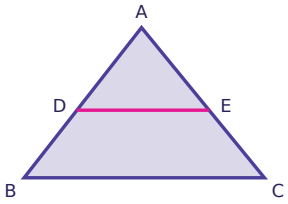


Triangle DEF



Task card 15 Angle-Angle Similarity & Similar T...

In triangle ABC, D is on side AB and E is on side AC, and DE is parallel to BC. AD = 6, AB = 14 and DE = 12. Find BC.



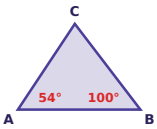
Task card 16 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF, with A matching D, B matching E and C matching F. Angle A is 70° and angle E is 29°. What is the measure of angle C?

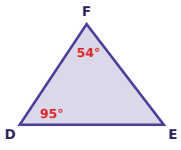
Task card 17 Angle-Angle Similarity & Similar T...

Are triangle ABC and triangle DEF similar? Write yes or no.

Triangle ABC



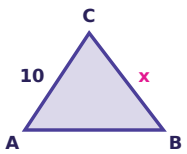
Triangle DEF



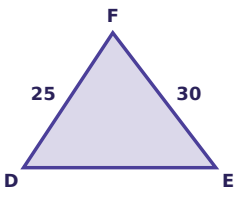
Task card 18 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF. Find x.

Triangle ABC

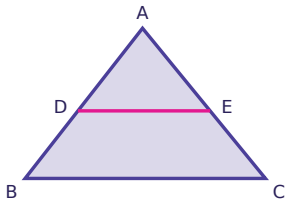


Triangle DEF



Task card 19 Angle-Angle Similarity & Similar T...

In triangle ABC, D is on side AB and E is on side AC, and DE is parallel to BC. AD = 5, AB = 20 and DE = 4. Find BC.



Task card 20 Angle-Angle Similarity & Similar T...

A signpost that is 9 feet tall casts a shadow 6 feet long. At the same time, a tower casts a shadow 16 feet long. The two triangles are similar. How many feet tall is the tower?

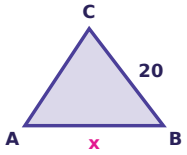
Task card 21 Angle-Angle Similarity & Similar T...

One right triangle has an acute angle of 29°. Another right triangle has an acute angle of 71°. Are the two triangles similar? Write yes or no.

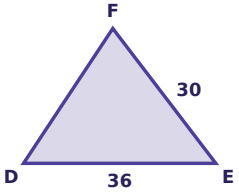
Task card 22 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF. Find x.

Triangle ABC

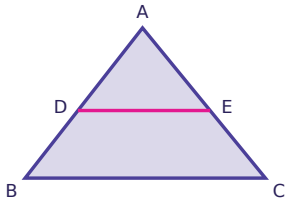


Triangle DEF



Task card 23 Angle-Angle Similarity & Similar T...

In triangle ABC, D is on side AB and E is on side AC, and DE is parallel to BC. AD = 18, AB = 30 and BC = 15. Find DE.



Task card 24 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF, with A matching D, B matching E and C matching F. Angle C is 50° and angle E is 27°. What is the measure of angle D?

Angle-Angle Similarity & Similar Triangles Task Cards

Recording sheet · Grade 8 · Answer each question. The pictures are not drawn to scale.

Scan to check your answers

Name: _____ Date: _____

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

Angle-Angle Similarity & Similar Triangles Task Cards: Answer Key

Grade 8 · Medium

The answers online

1. yes	**2.** 10	**3.** 40
4. 30°	**5.** no	**6.** 40
7. 9	**8.** 8	**9.** no
10. 30	**11.** 40	**12.** 21
13. yes	**14.** 12	**15.** 28
16. 81°	**17.** no	**18.** 12
19. 16	**20.** 24	**21.** no
22. 24	**23.** 9	**24.** 103°