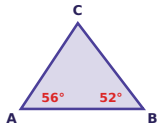
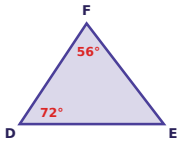
Task card 1 Angle-Angle Similarity & Similar T...

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

Triangle ABC



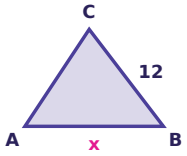
Triangle DEF



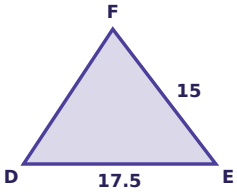
Task card 2 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF. Find x.

Triangle ABC

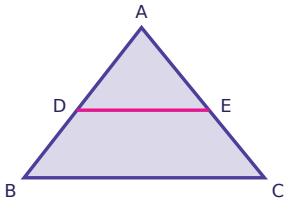


Triangle DEF



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

In triangle ABC, D is on side AB and E is on side AC, and DE is parallel to BC. AD = 30, DB = 18 and DE = 10. Find BC.



Task card 4 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 casts a shadow 15 feet long. The two triangles are similar. How many feet tall is the flagpole?

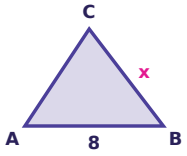
Task card 5 Angle-Angle Similarity & Similar T...

One right triangle has an acute angle of 66°. Another right triangle has an acute angle of 24°. Are the two triangles similar? Write yes or no.

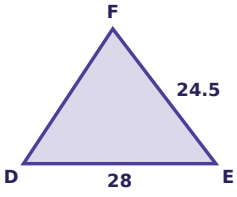
Task card 6 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF. Find x.

Triangle ABC

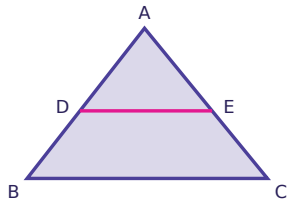


Triangle DEF



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

In triangle ABC, D is on side AB and E is on side AC, and DE is parallel to BC. AD = 8, DB = 4 and DE = 6. Find BC.



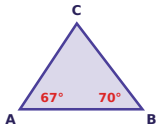
Task card 8 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF, with A matching D, B matching E and C matching F. Angle C is 69° and angle E is 73°. What is the measure of angle A?

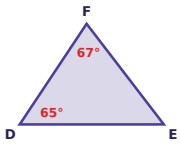
Task card 9 Angle-Angle Similarity & Similar T...

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

Triangle ABC



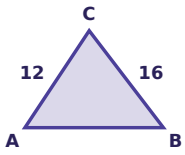
Triangle DEF



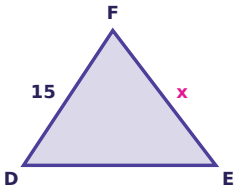
Task card 10 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF. Find x.

Triangle ABC

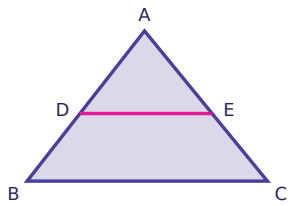


Triangle DEF



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 = 5, DB = 5 and BC = 4. Find DE.



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

A pole that is 4 feet tall casts a shadow 6 feet long. At the same time, a tree casts a shadow 21 feet long. The two triangles are similar. How many feet tall is the tree?

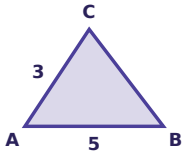
Task card 13 Angle-Angle Similarity & Similar T...

One right triangle has an acute angle of 30°. Another right triangle has an acute angle of 60°. Are the two triangles similar? Write yes or no.

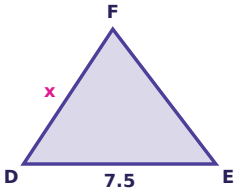
Task card 14 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF. Find x.

Triangle ABC

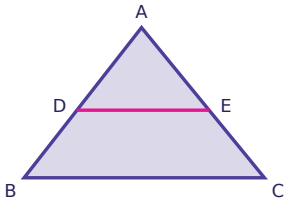


Triangle DEF



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 = 15, DB = 9 and DE = 45. Find BC.



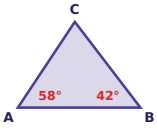
Task card 16 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF, with A matching D, B matching E and C matching F. Angle C is 27° and angle D is 63°. What is the measure of angle B?

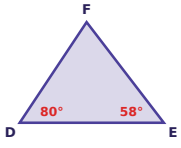
Task card 17 Angle-Angle Similarity & Similar T...

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

Triangle ABC



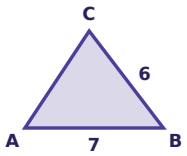
Triangle DEF



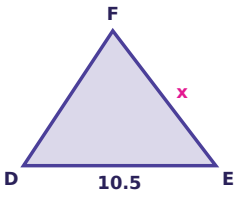
Task card 18 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF. Find x.

Triangle ABC

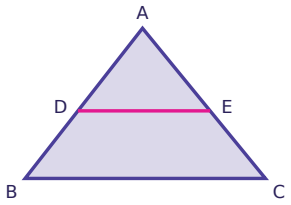


Triangle DEF



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 = 12, DB = 18 and BC = 50. Find DE.



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

A street sign that is 10 feet tall casts a shadow 8 feet long. At the same time, a building that is 35 feet tall casts a shadow. The two triangles are similar. How many feet long is the shadow of the building?

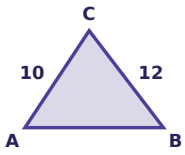
Task card 21 Angle-Angle Similarity & Similar T...

One right triangle has an acute angle of 53°. Another right triangle has an acute angle of 42°. Are the two triangles similar? Write yes or no.

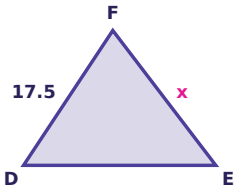
Task card 22 Angle-Angle Similarity & Similar T...

Triangle ABC is similar to triangle DEF. Find x.

Triangle ABC

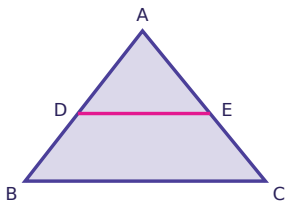


Triangle DEF



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 = 2, DB = 2 and BC = 6. 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 B is 55° and angle F is 27°. What is the measure of angle A?

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 · Hard

The answers online

1. yes	**2.** 14	**3.** 16
4. 20	**5.** yes	**6.** 7
7. 9	**8.** 38°	**9.** no
10. 20	**11.** 2	**12.** 14
13. yes	**14.** 4.5	**15.** 72
16. 90°	**17.** yes	**18.** 9
19. 20	**20.** 28	**21.** no
22. 21	**23.** 3	**24.** 98°