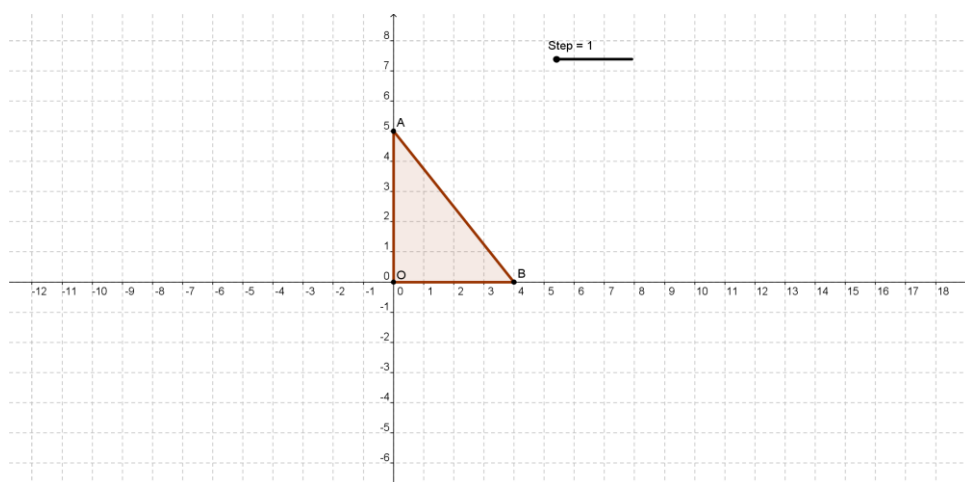


Student Activity on Area of a Triangle

Use in connection with the interactive file “Area of a Triangle” on the Student’s CD.

To investigate situations where we can use the formula $\frac{1}{2}$ base \times perpendicular height.



The slider called “Step” is used to change the information on the screen.

To start set the slider to “Step = 1”

1. What is the length of [OB]? _____
2. What is the length of [OA]? _____
3. Work out the area of the triangle AOB _____

4. Move the “Step” slider to 2. What is the length of [OD]? _____
5. What is the length of [OC]? _____
6. Work out the area of the triangle COD _____

7. Move the “Step” slider to 3. What is the length of [OF]? _____

8. What is the length of [OE]? _____

9. Work out the area of the triangle EOF _____

10. Move the “Step” slider to 4. We’re going to use [PR] as the base of this triangle.

What is the length of [PR]? _____

11. What is the perpendicular height of the triangle? _____

12. Work out the area of the triangle PQR _____

13. Move the “Step” slider to 5. We’re going to use [SU] as the base of this triangle.

What is the length of [SU]? _____

14. What is the perpendicular height of the triangle? _____

15. Work out the area of the triangle SUT _____

16. Move the “Step” slider to 6. We’re going to use [PR] as the base of this triangle.

What is the length of [PR]? _____

17. What is the perpendicular height of the triangle? _____

18. Work out the area of the triangle PQR _____

19. Move the "Step" slider to 7. We're going to use [SU] as the base of this triangle.

What is the length of [SU]? _____

20. What is the perpendicular height of the triangle? _____

21. Work out the area of the triangle SUT _____

22. Move the "Step" slider to 8. We're going to use [AC] as the base of this triangle.

What is the length of [AC]? _____

23. What is the perpendicular height of the triangle? _____

24. Work out the area of the triangle ABC _____

25. Move the "Step" slider to 9. We're going to use [DF] as the base of this triangle.

What is the length of [DF]? _____

26. What is the perpendicular height of the triangle? _____

27. Work out the area of the triangle DEF _____

28. Move the "Step" slider to 10. We're going to use [AB] as the base of this triangle.

What is the length of [AB]? _____

29. What is the perpendicular height of the triangle? _____

30. Work out the area of the triangle ABC _____

31. Move the “Step” slider to 11. The points P and R have coordinates (2,1) and (10,1). They are both on the line $y=1$. The point Q is on the line $y=4$. We don't know the x-coordinate of the point Q. How far is Q from the line $y=1$? _____
32. Work out the area of the triangle PQR _____

33. Move the “Step” slider to 12. The points A and C have coordinates (3,7) and (3,2). They are both on the line $x=3$. The point B is on the line $x=7$. We don't know the y-coordinate of the point B. How far is B from the line $x=3$? _____
34. Work out the area of the triangle ABC _____

35. Move the “Step” slider to 13. This is an example of where you can still use the formula $\frac{1}{2} \text{ base} \times \text{perpendicular height}$ (but this time the base is not parallel to one of the axes).

Try the “Area of a Triangle Quiz” that is also on this CD/Website