A Droodle for the Review of Area

by David H. Pleacher Originally published in the Virginia Mathematics Teacher May 1981

Directions:

Solve the area problems below and find the letter of the corresponding answer in the second column.

Then in the spaces at the bottom, write the letter that corresponds to each number. This will give you the title of the Droodle (this droodle is from a book called *Droodles* by Roger Price). A Droodle is "a Borkley-looking sort of drawing that doesn't make any sense until you know the correct title," says Roger Price.

Note: All linear measurements are in units and all areas are in square units.

Area Problems	<u>Ans</u>	swers
1. Determine the area of a triangle with base 18 and altitude 9.	Α.	162
2. A square and a rectangle have equal areas. If the dimensions of	В.	510
the rectangle are 15 x 3, find the length of the side of the square.	C.	225
3. Compute the area of a parallelogram with base $2\sqrt{30}$ and	D.	81
altitude $\sqrt{15}$.	E.	$3\sqrt{5}$
4. How many 4" x 4" tiles would it take to cover an area 10' x 5' 8"?	G.	$3\sqrt{10}$
5. Determine the area of a trapezoid whose altitude is 3 and bases	Η.	2
are 19 and 11.	١.	4
6. Determine the area of a rectangle with base $\sqrt{6}$ and altitude $\sqrt{15}$.	J.	135
7. Determine the area of a rectangle whose perimeter is 22 and one	К.	8
side is 5.	L.	10
8. Determine the area of $\triangle ABC$ if $m \angle C = 30$, $m \angle B = 90$, and $AC = 8$.	M.	22.5
9. Determine the perimeter of a square whose area is 49 square units.	N.	$30\sqrt{2}$
10. Determine the area of a rhombus whose diagonals are 5 and 9.	0.	$8\sqrt{3}$
11. Determine the area of a square whose perimeter is 60.	Ρ.	$4\sqrt{3}$
12. Compute the area of a parallelogram with base 90 and altitude 3.	R.	45
13. Two sides of a triangle are 20 and 16 units long, and the altitude to	S.	60
the 20-unit side is 8 units. Determine the length of the altitude	Т.	242
to the 16-unit side.	U.	121
14. Determine the length of the side of a square whose perimeter is	۷.	30
numerically equal to its area.	W.	28
15. A rhombus has a side equal to 18, and the measure of one angle	Х.	14
equal to 30. Determine its area.	Ζ.	None of
16. Determine the area of a square whose side is $11\sqrt{2}$.		the above

What is the title of this drawing?



1 2 16 2 5 10 14 3 2 1 9 8 5 10 11 5 15 9 13 14 3 6

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