HOMEWORK

Lucy desires to go to the seaside, because she missed that opportunity for the last two years. But she has a problem. Her parents gave her an assignment. She has to solve mathematical problems in order to get there. There is only one path driving Lucy to the seaside.

		$10\sqrt{5}$	*Reflection over y-axis*	**Home** Task 1
$k=8$	No solution	$a \neq -\frac{3}{2}$	(1, -3)	*Reflection over x-axis.*
B (3, -1)	Perpendicular, $k_1=-1/k_2$ ($k_1=\frac{3}{4}$, $k_2=-\frac{4}{3}$)	$2\sqrt{5}$	$a=-\frac{3}{2}$	(1, 3)
$k=-8$		Parallel ($k_1=k_2=\frac{3}{4}$)	B (-1,3)	

SEASIDE

Task 1

Draw the graph with absolute values, $f(x) = |x|$ and answer which transformation will you use to draw the graph of the function $f(x) = -|x|$.

Task 2

On the straight line $x + y + 2 = 0$ determine the spot which is the nearest to the spot (2,-2).

Task 3

Determine the value of number a for which the system of equations has a unique solution.

$$\begin{cases} 3x - 2y = 6 \\ ax + y = 2 \end{cases}$$

Task 4

The triangle with vertices A (2,1), B (-2, -2) and C (-8,6), is given. Determine the length of the height from the vertex B.

Task 5

Determine whether the graphs of the following functions are parallel or perpendicular.

$$3x - 4y - 8 = 0$$
$$4x + 3y - 15 = 0$$

Task 6

Determine the coordinates of the point B that belongs to the straight line $y = \frac{1}{3}x - 2$ and is nearest to the point A (1,5).

Task 7

Determine the value of number *k* in order for the graphs of two linear functions to be parallel.

$$y = (k - 5)x + k - 3$$
$$y = (2k + 3)x - (3k + 2)$$

SOLUTION

		$10\sqrt{5}$	*Reflection over y-axis*	**Home** Task 1
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$k=-8$		Parallel ($k_1=k_2=\frac{3}{4}$)	B (-1,3)	

SEASIDE

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