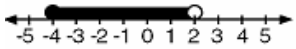
Matho Worksheet

1) Simplify: $\sqrt{243}$	2) If the area of a rectangle is $8\sqrt{108}$ and the width is $4\sqrt{12}$, what is the length in simplest form?
3) What is the area of a rectangle if the perimeter is 28 and its length is 12.	4) Simplify: $5\sqrt{384}$
5) Evaluate: $4^2 - 5\lvert 2 - 8 \rvert \div 2$	6) What is the difference between $3\sqrt{32}$ and $5\sqrt{18}$
7) Write the following in set notation? 	8) A flag pole sits 25 yards away from the foot of a school building. When the flag is at its highest point, it is 27 yards from the foot of the school building. How high is the flag at his highest point in simplest radical form?
9) $\sqrt{8}$ is what type of number?	10) Evaluate: $\left(3\sqrt{3}\right)^2$
11) Rationalize the denominator: $\frac{4}{2\sqrt{5}}$	12) Set A = {2, 4, 6, 8, 10, 12} Set B = {1, 2, 3, 4, 5} What is $A \cap B$
13) Simplify: $-2\sqrt{245}$	14) What type of number is $\frac{1}{3}$
15) Evaluate: $8 \div 2\left[3 - 2(3-6)^2\right]$	16) Set A = {2, 4, 6, 8, 10, 12} Set B = {1, 2, 3, 4, 5} What is $A \cup B$
17) Divide: $\frac{12\sqrt{108}}{6\sqrt{2}}$	18) Can these be lengths of a right triangle? 7, 9, 12
19) What is $-4 < x \leq 2$ written in interval notation?	20) Given a right triangle with legs of 10 and 12 what is the hypotenuse in simplest radical form?
21) Multiply and Simplify: $\left(5\sqrt{8}\right)\left(7\sqrt{3}\right)$	22) Set A = {F, U, N, M, A, T, H} Set B = {H, A, T} What is the complement of B in A?
23) Evaluate: $\sqrt{2}\left(\sqrt{40} + 7\sqrt{10}\right)$	24) Evaluate: $3\sqrt{50} - 5\sqrt{72}$

M	A	T	H	O

Answer Bank: Randomly place these answers in the MATHO board above. Copy in pen, and be sure to copy the answers correctly.

$9\sqrt{3}$	$70\sqrt{6}$	$2\sqrt{26}$	$-14\sqrt{5}$	$6\sqrt{6}$
1	27	2	6	-60
$40\sqrt{6}$	$\frac{2\sqrt{5}}{5}$	$-3\sqrt{2}$	$2\sqrt{61}$	$18\sqrt{5}$
$\{2, 4\}$	$\{x \mid -4 \le x < 2\}$	$\{1,2,3,4,5,6,8,10,12\}$	$(-4, 2]$	$\{F, U, N, M\}$
Irrational	Yes	Rational	No	$-15\sqrt{2}$