Which one?! – Common Math Mistakes

	Choose "Answer A" or "Answer B"	ANSWER A	ANSWER B	Comments
1	What's the next step to simplify? $8(-3)^2$	Multiply 8 and -3	Square the -3	
2	What operation do you do between the exponents? $(x^3)^4$	Add	Multiply	
3	Which expression is equivalent to $(3x^3)^2$	$9x^6$	$3x^6$	
4	To combine, will you add or multiply the exponents? $x^{5/6} * x^{3/4}$	Add	Multiply	
5	To combine, will you add or multiply the exponents? $\left(y^{2/3}\right)^{3/4}$	Add	Multiply	
6	Multiply : $(2x + 3y)^2$	$4x^2 + 12xy + 9y^2$	$4x^2 + 9y^2$	
7	What is $\frac{0}{7}$?	0	Undefined	
8	What is $\frac{7}{0}$?	0	Undefined	
9	Which one is equal to $-\frac{32}{4}$?	$\frac{-32}{4}$	$\frac{-32}{-4}$	
10	Which is equivalent to $(-3)^2$?	$-(3) \cdot (3)$	$(-3)(-3)$	
11	Is $\frac{3x}{4}$ equivalent to $\frac{3}{4}x$?	Yes	No	
12	Simplify : $8x^{-3}$	$\frac{1}{8x^3}$	$\frac{8}{x^3}$	
13	Simplify : $(6x)^{-2}$	$\frac{36}{x^2}$	$\frac{1}{36x^2}$	

14	Divide : $\frac{x-3x^3}{x}$	$1-3x^3$	$1-3x^2$	
15	Simplify : $\sqrt{-16}$	-4	Not a real number	
16	Simplify : $\sqrt{x^4y^{16}}$	x^2y^8	x^2y^4	
17	Simplify : $\sqrt{(x+5)^2}$	$\|x+5\|$	Cannot be simplified	
18	Simplify : $\sqrt{x^2+25}$	$\|x+5\|$	Cannot be simplified	
19	Multiply : $3\sqrt{2}*5\sqrt{3}$	$15\sqrt{6}$	$8\sqrt{5}$	
20	In which case can the two radicands be combined?	$\sqrt{a}+\sqrt{6}$	$\sqrt{a}*\sqrt{6}$	
21	Convert to fractional exponents: $\sqrt{7x}$	$7x^{1/2}$	$7^{1/2}\cdot x^{1/2}$	
22	The equation $x^2=3x$ has only one solution: $x=3$	Yes	No	
23	Is the following allowed? $\frac{7}{3+4}=\frac{7}{3}+\frac{7}{4}$	Yes	No	
24	Is the following allowed? $\cos\left(\pi+\frac{\pi}{2}\right)=\cos(\pi)+\cos\left(\frac{\pi}{2}\right)$	Yes	No	
25	Is the following allowed? $\sin(2\theta)=2\sin\theta$	Yes	No	
26	Which is equivalent? $\cos^3 x$	$(\cos x)^3$	$\cos x^3$	
27	Is the following true or false? $\cos^{-1}x=\frac{1}{\cos x}$	True	False	