

1. Which of the following variable terms is a perfect square?

the exponent is even



$$n^3$$



$$n^7$$

$$n^{25}$$

2. Which step would be correct in simplifying:

Simplify 
$$3\sqrt{8} + 3\sqrt{2}$$
 for addition

$$(\sqrt{4}\sqrt{2}) + 3\sqrt{2}$$

3. Find what value should replace the?

$$\frac{\sqrt{15a^7b^4}}{\sqrt{3a^2}}$$
 $\Rightarrow Divide | st$ 
 $\sqrt{5a^7b^4}$ 

4. Simplify:

$$\sqrt[4]{531,441} = 27$$

5. Find what value should replace the?

$$\sqrt{16}\sqrt{2}\sqrt{x^4}\sqrt{x}$$
 $\sqrt{16}\sqrt{x^4}\sqrt{?}$ 

Reorganize

$$\sqrt{16}\sqrt{x^4}\sqrt{?}$$

$$1 = 2x$$

6. Which step would be correct in simplifying:

$$\sqrt{32}$$





\* use the perfect biggest perfect

7. Which of the following numbers is irrational?



0.43434343....





8. Find what value should replace the?

$$\sqrt{2}+3\sqrt{2}$$

 $\sqrt{2}+3\sqrt{2}$   $4\sqrt{?}$ the radicands

1=2

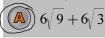
9. Which step would be correct in simplifying:

$$3\sqrt{3}(2\sqrt{3} + 2)$$

$$3\sqrt{3}(2\sqrt{3}) + 2\sqrt{3}(2) \iff 2\sqrt{3}$$

$$6\sqrt{9} + 6\sqrt{3}$$

$$8 6\sqrt{9} + 2$$

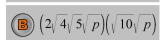


10. Find what value should replace the?

$$\sqrt{64}\sqrt{a^{16}}\sqrt{b^4}\sqrt{2}$$

$$8a^{?}b^{2}\sqrt{2}$$

 $8a^{2}b^{2}\sqrt{2}$   $\Rightarrow$  Split exponent in half to take the  $\frac{7}{2}$  = 8



 $2\sqrt{200p^2}$ 

11. Which step would be correct in simplifying:

(2/20p)(/10p)

\* Multiply (st BEFORE simplifying)

12. Which step would be correct in simplifying:

$$\frac{\sqrt{12x^5}}{\sqrt{3x^2}}$$





\* Divide 1st BEFORE Simplifying

13. Find what value should replace the?

$$\sqrt{18}\sqrt{m^7}\sqrt{n^4}$$
 Asplit apart the variable term by subtracting one from the exponent

14. Which choice is the following expression equivalent to:  $3\sqrt{7}$ 











15. Find the value of x for the following:



 $\sqrt{75} + x\sqrt{3} = 7\sqrt{3}$   $5\sqrt{3} + \sqrt{3} = 7\sqrt{3}$ 









