#### **GRE Arithmetic Practice Test 10**

#### Question 1

Simplify 
$$(\frac{16}{81})^{1/4}$$
 .

Possible Answers:

8			
81			

$$\frac{4}{9}$$

$$\frac{2}{81}$$

$$\frac{2}{3}$$

$$\frac{4}{81}$$



Correct answer:

 $\frac{2}{3}$ 

# Simplfy the following radical $\sqrt{20x^2}$ .

Possible Answers:

 $2\sqrt{5x^2}$ 

 $4\sqrt{5x}$ 

 $2x\sqrt{5}$ 

 $2x\sqrt{10}$ 



Correct answer:

 $2x\sqrt{5}$ 

#### Explanation:

You can rewrite the equation as  $\sqrt{20x^2}=(x)\sqrt{5}\cdot\sqrt{4}.$ 

This simplifies to  $2x\sqrt{5}$ .

## Which of the following is equal to $\sqrt{75}$ ?

#### Possible Answers:

 $7.5\sqrt{10}$ 

9

 $3\sqrt{5}$ 

 $5\sqrt{3}$ 



Correct answer:

 $5\sqrt{3}$ 

#### **Explanation:**

 $\sqrt{75}$  can be broken down to  $\sqrt{25}$  \*  $\sqrt{3}$ . Which simplifies to  $5\sqrt{3}$ .

# Simplify $\sqrt{a^3b^4c^5}$ .

#### Possible Answers:



$$a^2b^2c^2\sqrt{bc}$$

$$a^2b^2c\sqrt{ab}$$

$$ab^2c^2\sqrt{ac}$$

$$a^2bc\sqrt{bc}$$

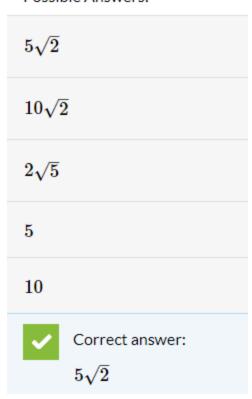


Correct answer:

$$ab^2c^2\sqrt{ac}$$

# What is $\sqrt{50}$ ?

#### Possible Answers:



Question 6

# Which of the following is equivalent to $\dfrac{x+\sqrt{3}}{3x+\sqrt{2}}$ ?

Possible Answers:

$$\frac{3x^2 - x\sqrt{2} + 3x\sqrt{3} - \sqrt{6}}{9x^2 - 2}$$

$$\frac{4x+\sqrt{5}}{3x+2}$$

$$\frac{3x^2 + 3x\sqrt{2} + x\sqrt{3} + \sqrt{6}}{9x^2 - 2}$$

$$\frac{3x^2-\sqrt{6}}{9x^2+2}$$

$$\frac{3x^2+\sqrt{6}}{3x-2}$$



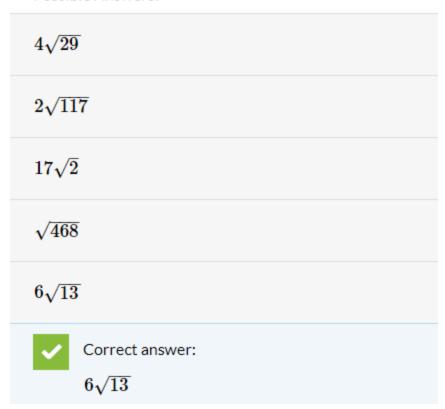
Correct answer:

$$\frac{3x^2 - x\sqrt{2} + 3x\sqrt{3} - \sqrt{6}}{9x^2 - 2}$$

Which of the following is the most simplified form of:

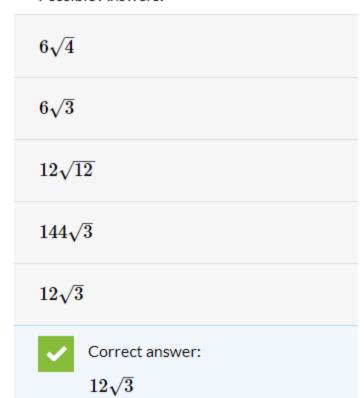
$$\sqrt{468}$$

#### Possible Answers:



# What is $\sqrt{432}$ equal to?

### Possible Answers:



#### Which of the following is equivalent to:

$$\sqrt{210} + \sqrt{55}$$
?

#### Possible Answers:

 $5\sqrt{462}$ 

 $\sqrt{265}$ 

 $5\sqrt{7} + \sqrt{11}$ 

 $\sqrt{5}(\sqrt{42}+\sqrt{11})$ 

 $7\sqrt{30} + 5\sqrt{11}$ 



Correct answer:

 $\sqrt{5}(\sqrt{42}+\sqrt{11})$ 

#### Simplify:

$$\sqrt{15} - \sqrt{20} + \sqrt{35}$$

Possible Answers:

$$\sqrt{2}(\sqrt{5}+2\sqrt{7})$$

$$2\sqrt{15}+\sqrt{2}$$

$$\sqrt{5}(\sqrt{3}+\sqrt{7}-2)$$

$$\sqrt{7}-3\sqrt{5}$$

$$\sqrt{5}(\sqrt{10}-2)$$



Correct answer:

$$\sqrt{5}(\sqrt{3}+\sqrt{7}-2)$$