

NAME: \_\_\_\_\_

*P.I. A.N.3: Perform the four arithmetic operations using like and unlike radical terms and express the result in simplest form*

Divide:

1.  $\frac{\sqrt{65}}{\sqrt{5}}$

[A] 13    [B]  $\sqrt{60}$     [C]  $\sqrt{13}$     [D] 60

2.  $\frac{\sqrt{15}}{\sqrt{3}}$

[A]  $\sqrt{12}$     [B] 12    [C] 5    [D]  $\sqrt{5}$

3.  $\frac{\sqrt{77}}{\sqrt{11}}$

[A]  $\sqrt{7}$     [B]  $\sqrt{66}$     [C] 66    [D] 7

4.  $\frac{\sqrt{6}}{\sqrt{2}}$

[A]  $\sqrt{3}$     [B] 3    [C] 4    [D]  $\sqrt{4}$

5. Find the quotient and completely simplify the radical expression  $\frac{\sqrt{72}}{\sqrt{6}}$ .

6. Find the quotient and completely simplify the radical expression  $\frac{\sqrt{300}}{\sqrt{20}}$ .

7. Find the quotient and completely simplify the radical expression  $\frac{\sqrt{360}}{\sqrt{12}}$ .

8. Find the quotient and completely simplify the radical expression  $\frac{\sqrt{30}}{\sqrt{10}}$ .

9. Find the quotient and completely simplify the radical expression  $\frac{\sqrt{36}}{\sqrt{6}}$ .

10. Find two pairs of integers  $a$  and  $b$  such that  $\frac{\sqrt{a}}{\sqrt{b}} = 4\sqrt{5}$ .

[1] C

[2] D

[3] A

[4] A

[5]  $2\sqrt{3}$

[6]  $\sqrt{15}$

[7]  $\sqrt{30}$

[8]  $\sqrt{3}$

[9]  $\sqrt{6}$

Answers may vary. Sample:

[10]  $a = 160, b = 2; a = 240, b = 3$