

Math 05 Practice

radicals

Generated by WeBWork

Prepared by Y. Hu

Version 1

Problem 1.

Simplify.

$$7\sqrt{8} + 3\sqrt{200}$$

- A. $44\sqrt{2}$
 - B. $328\sqrt{2}$
 - C. $17\sqrt{2}$
 - D. $14\sqrt{2} + 6\sqrt{10}$
-

Problem 2.

Simplify completely.

$$\sqrt{2}(\sqrt{26} + 2\sqrt{2})$$

- A. $13\sqrt{2} + 4$
 - B. $2\sqrt{13} + 2\sqrt{2}$
 - C. $4\sqrt{13}$
 - D. $2\sqrt{13} + 4$
-

Problem 3.

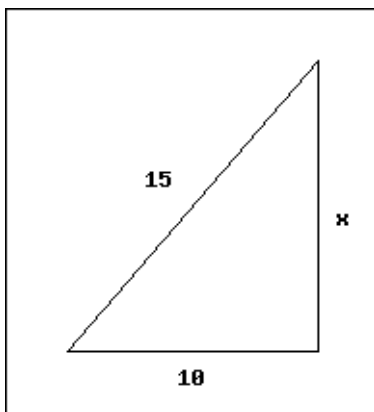
Simplify completely.

$$\frac{\sqrt{2}\sqrt{42}}{\sqrt{3}}$$

- A. $2\sqrt{7}$
 - B. $7\sqrt{2}$
 - C. $2\sqrt{14}$
 - D. $4\sqrt{7}$
-

Problem 4.

What is the value of x in the right triangle?



- A. $5\sqrt{6}$
- B. $\sqrt{5}$
- C. $5\sqrt{5}$
- D. $6\sqrt{5}$

Version 2

Problem 1.

Simplify.

$$8\sqrt{5} - 4\sqrt{80}$$

- A. $8\sqrt{5}$
 - B. $-56\sqrt{5}$
 - C. $40 - 20\sqrt{4}$
 - D. $-8\sqrt{5}$
-

Problem 2.

Simplify completely.

$$\sqrt{7}(\sqrt{77} + 4\sqrt{7})$$

- A. $49\sqrt{11}$
 - B. $11\sqrt{7} + 28$
 - C. $7\sqrt{11} + 4\sqrt{7}$
 - D. $7\sqrt{11} + 28$
-

Problem 3.

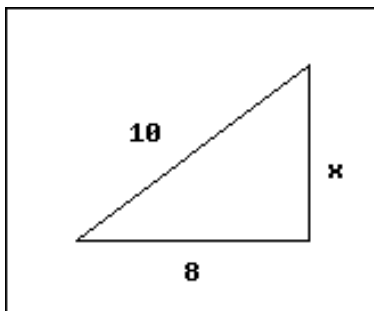
Simplify completely.

$$\frac{\sqrt{2}\sqrt{42}}{\sqrt{7}}$$

- A. $2\sqrt{6}$
 - B. $4\sqrt{3}$
 - C. $3\sqrt{2}$
 - D. $2\sqrt{3}$
-

Problem 4.

What is the value of x in the right triangle?



- A. $\sqrt{2}$
- B. 6
- C. $\sqrt{6}$
- D. 2

Version 3

Problem 1.

Simplify.

$$8\sqrt{2} + \sqrt{50}$$

- A. $9\sqrt{2}$
 - B. $33\sqrt{2}$
 - C. $16 + 2\sqrt{5}$
 - D. $13\sqrt{2}$
-

Problem 2.

Simplify completely.

$$\sqrt{7}(\sqrt{70} + 3\sqrt{7})$$

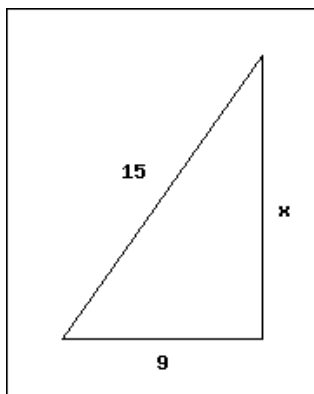
- A. $7\sqrt{10} + 21$
 - B. $7\sqrt{10} + 3\sqrt{7}$
 - C. $49\sqrt{10}$
 - D. $10\sqrt{7} + 21$
-

Problem 3.

Simplify completely.

$$\frac{\sqrt{2}\sqrt{30}}{\sqrt{3}}$$

- A. $2\sqrt{5}$
 - B. $2\sqrt{10}$
 - C. $4\sqrt{5}$
 - D. $5\sqrt{2}$
-

Problem 4.What is the value of x in the right triangle?

- A. $\sqrt{6}$
- B. 12
- C. 6
- D. $\sqrt{12}$

Version 4**Problem 1.**

Simplify.

$$5\sqrt{20} - 3\sqrt{180}$$

- A. $8\sqrt{5}$
- B. $25\sqrt{2} - 15\sqrt{6}$
- C. $-88\sqrt{5}$
- D. $-8\sqrt{5}$

Simplify completely.

$$\sqrt{2}(\sqrt{22} + 2\sqrt{2})$$

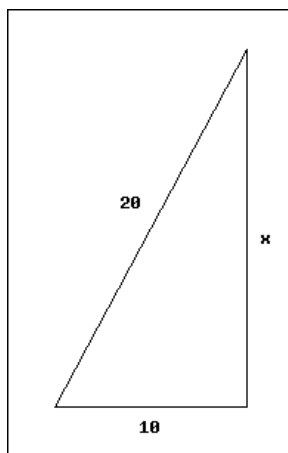
- A. $2\sqrt{11} + 2\sqrt{2}$
- B. $4\sqrt{11}$
- C. $11\sqrt{2} + 4$
- D. $2\sqrt{11} + 4$

Problem 3.

Simplify completely.

$$\frac{\sqrt{6}\sqrt{36}}{\sqrt{2}}$$

- A. $6\sqrt{18}$
- B. $36\sqrt{3}$
- C. $6\sqrt{3}$
- D. $3\sqrt{6}$

Problem 4.What is the value of x in the right triangle?

- A. $10\sqrt{3}$
- B. 10
- C. $3\sqrt{10}$
- D. $\sqrt{10}$

Version 5

Problem 1.

Simplify.

$$2\sqrt{2} - 3\sqrt{72}$$

- A. $-106\sqrt{2}$
 - B. $4 - 6\sqrt{6}$
 - C. $-16\sqrt{2}$
 - D. $16\sqrt{2}$
-

Problem 2.

Simplify completely.

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

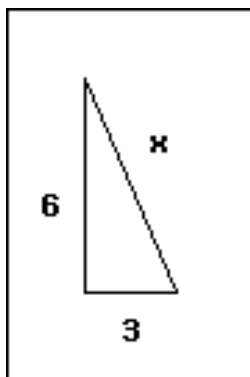
- A. $4\sqrt{5}$
 - B. $5\sqrt{2} + 10$
 - C. $2\sqrt{5} + 5\sqrt{2}$
 - D. $2\sqrt{5} + 10$
-

Problem 3.

Simplify completely.

$$\frac{\sqrt{7}\sqrt{70}}{\sqrt{5}}$$

- A. $2\sqrt{7}$
 - B. $7\sqrt{2}$
 - C. $7\sqrt{14}$
 - D. $49\sqrt{2}$
-

Problem 4.What is the value of x in the right triangle?

- A. $3\sqrt{5}$
- B. 3
- C. $\sqrt{3}$
- D. $5\sqrt{3}$

Version 6

Problem 1.

Simplify.

$$4\sqrt{2} + 5\sqrt{50}$$

- A. $129\sqrt{2}$
 - B. $29\sqrt{2}$
 - C. $9\sqrt{2}$
 - D. $8 + 10\sqrt{5}$
-

Problem 2.

Simplify completely.

$$\sqrt{6}(\sqrt{30} - 2\sqrt{6})$$

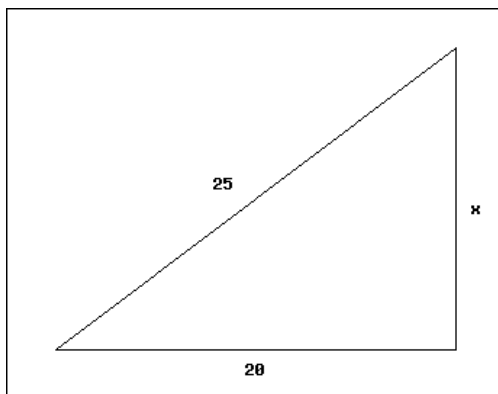
- A. $6\sqrt{5} - 12$
 - B. $36\sqrt{5}$
 - C. $6\sqrt{5} - 2\sqrt{6}$
 - D. $5\sqrt{6} - 12$
-

Problem 3.

Simplify completely.

$$\frac{\sqrt{2}\sqrt{70}}{\sqrt{5}}$$

- A. $2\sqrt{14}$
 - B. $4\sqrt{7}$
 - C. $7\sqrt{2}$
 - D. $2\sqrt{7}$
-

Problem 4.What is the value of x in the right triangle?

- A. 5
- B. 15
- C. $\sqrt{5}$
- D. $\sqrt{15}$

Version 7

Problem 1.

Simplify.

$$4\sqrt{50} - \sqrt{72}$$

- A. $8\sqrt{5} - 2\sqrt{6}$
 - B. $-14\sqrt{2}$
 - C. $64\sqrt{2}$
 - D. $14\sqrt{2}$
-

Problem 2.

Simplify completely.

$$\sqrt{2}(\sqrt{6} + 5\sqrt{2})$$

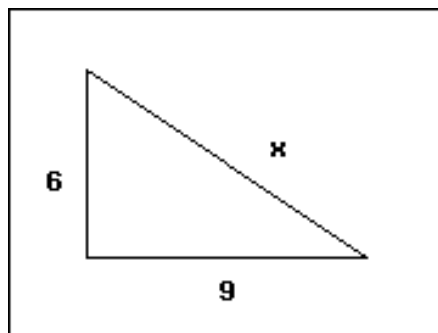
- A. $2\sqrt{3} + 10$
 - B. $3\sqrt{2} + 10$
 - C. $4\sqrt{3}$
 - D. $2\sqrt{3} + 5\sqrt{2}$
-

Problem 3.

Simplify completely.

$$\frac{\sqrt{2}\sqrt{70}}{\sqrt{7}}$$

- A. $2\sqrt{10}$
 - B. $4\sqrt{5}$
 - C. $2\sqrt{5}$
 - D. $5\sqrt{2}$
-

Problem 4.What is the value of x in the right triangle?

- A. 15
- B. $\sqrt{15}$
- C. $3\sqrt{13}$
- D. $13\sqrt{3}$

Version 8**Problem 1.**

Simplify.

$$7\sqrt{45} + \sqrt{20}$$

- A. $23\sqrt{5}$
- B. $35\sqrt{3} + 5\sqrt{2}$
- C. $22\sqrt{5}$
- D. $67\sqrt{5}$

Problem 2.

Simplify completely.

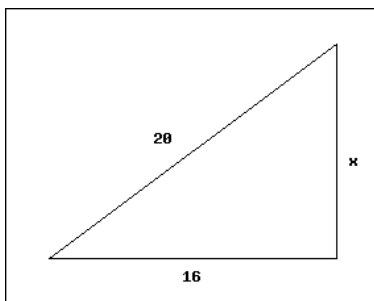
$$\sqrt{7}(\sqrt{21} + 5\sqrt{7})$$

- A. $3\sqrt{7} + 35$
- B. $49\sqrt{3}$
- C. $7\sqrt{3} + 35$
- D. $7\sqrt{3} + 5\sqrt{7}$

Simplify completely.

$$\frac{\sqrt{5}\sqrt{30}}{\sqrt{3}}$$

- A. $5\sqrt{10}$
- B. $25\sqrt{2}$
- C. $2\sqrt{5}$
- D. $5\sqrt{2}$

Problem 4.What is the value of x in the right triangle?

- A. 12
- B. $\sqrt{12}$
- C. $\sqrt{2}$
- D. 2

Version 9

Problem 1.

Simplify.

$$7\sqrt{54} + 3\sqrt{96}$$

- A. $42\sqrt{3} + 18\sqrt{4}$
 - B. $24\sqrt{6}$
 - C. $111\sqrt{6}$
 - D. $33\sqrt{6}$
-

Problem 2.

Simplify completely.

$$\sqrt{3}(\sqrt{6} + 5\sqrt{3})$$

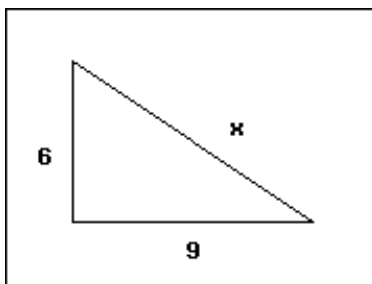
- A. $2\sqrt{3} + 15$
 - B. $3\sqrt{2} + 15$
 - C. $9\sqrt{2}$
 - D. $3\sqrt{2} + 5\sqrt{3}$
-

Problem 3.

Simplify completely.

$$\frac{\sqrt{3}\sqrt{30}}{\sqrt{2}}$$

- A. $9\sqrt{5}$
 - B. $3\sqrt{15}$
 - C. $5\sqrt{3}$
 - D. $3\sqrt{5}$
-

Problem 4.What is the value of x in the right triangle?

- A. 15
- B. $\sqrt{15}$
- C. $13\sqrt{3}$
- D. $3\sqrt{13}$

Version 10**Problem 1.**

Simplify.

$$7\sqrt{27} + 5\sqrt{75}$$

- A. $188\sqrt{3}$
- B. $21\sqrt{3} + 15\sqrt{5}$
- C. $26\sqrt{3}$
- D. $46\sqrt{3}$

Problem 2.

Simplify completely.

$$\sqrt{5}(\sqrt{35} + 3\sqrt{5})$$

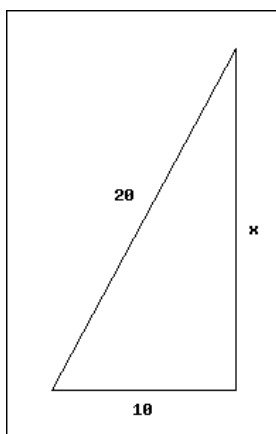
- A. $5\sqrt{7} + 3\sqrt{5}$
- B. $7\sqrt{5} + 15$
- C. $5\sqrt{7} + 15$
- D. $25\sqrt{7}$

Problem 3.

Simplify completely.

$$\frac{\sqrt{2}\sqrt{42}}{\sqrt{3}}$$

- A. $2\sqrt{14}$
- B. $4\sqrt{7}$
- C. $7\sqrt{2}$
- D. $2\sqrt{7}$

Problem 4.What is the value of x in the right triangle?

- A. 10
- B. $3\sqrt{10}$
- C. $\sqrt{10}$
- D. $10\sqrt{3}$

Answers.

Version 1.

1.A 2.D 3.A 4.C

Version 2.

1.D 2.D 3.D 4.B

Version 3.

1.D 2.A 3.A 4.B

Version 4.

1.D 2.D 3.C 4.A

Version 5.

1.C 2.D 3.B 4.A

Version 6.

1.B 2.A 3.D 4.B

Version 7.

1.D 2.A 3.C 4.C

Version 8.

1.A 2.C 3.D 4.A

Version 9.

1.D 2.B 3.D 4.D

Version 10.

1.D 2.C 3.D 4.D