DID YOU HEAR ABOUT THE . . .

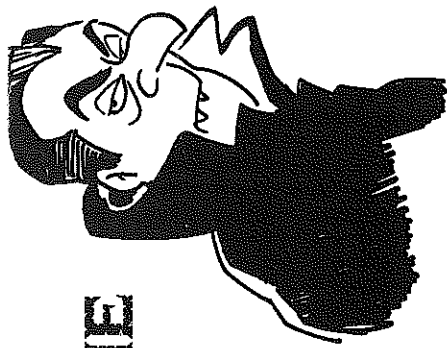| 1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20 ?

Simplify the expression, then find your answer. Write the word next to the correct answer in the box that contains the exercise number.

Answers 1-10

$x\sqrt{5}/8$ **DECIDED** $2xy^2\sqrt{5y}$ **ON** $8\sqrt{5}$ **POLE** $2\sqrt{10}$ **JAVELIN** $5\sqrt{11}-8\sqrt{2}$ **CLIMBER** $-4\sqrt{7}$ **TO** $12\sqrt{5}$ **JUMP** $30\sqrt{6}$ **THROWER** $3x^2\sqrt{7x}$ **A** $x\sqrt{3}/16$ **BROKE** $2xy^3\sqrt{6y}$ **WHEN** $3\sqrt{2}/7$ **WHO** $9x^2\sqrt{3x}$ **CHAMPION** $36\sqrt{5}$ **BECOME** $7\sqrt{11}-6\sqrt{2}$ **VAULTER**

Answers 11-20

$12\sqrt{3}$ **TIP** $5m^4\sqrt{2n}$ **SHOT** $2\sqrt{33n}$ **DIRT** $55\sqrt{2}$ **JAVELIN** $-2\sqrt{n}+10\sqrt{7n}$ **IN** $\dfrac{3\sqrt{5}}{10}$ **THAT** -192 **OF** $3m^4n\sqrt{10n}$ **GOT** $48\sqrt{2}$ **SHOE** $\dfrac{\sqrt{3}}{2}$ **THE** $4n\sqrt{33}$ **GROUND** $10m^2\sqrt{n}$ **THE** $\dfrac{\sqrt{5}}{20}$ **HIS** $\sqrt{6}$ **STUCK** $-4\sqrt{n}+7\sqrt{10n}$ **UP**

---

1 $\sqrt{5}\cdot\sqrt{8}$

2 $3\sqrt{10}\cdot 2\sqrt{15}$

3 $\sqrt{\dfrac{18}{49}}$

4 $\sqrt{\dfrac{10x^3}{128x}}$

5 $-12\sqrt{7}+7\sqrt{7}+\sqrt{7}$

6 $6\sqrt{45}+9\sqrt{20}$

7 $\sqrt{21x^3}\cdot\sqrt{3x^2}$

8 $\dfrac{40}{\sqrt{5}}$

9 $\sqrt{11}-5\sqrt{2}+6\sqrt{11}-\sqrt{2}$

10 $\sqrt{3xy^3}\cdot\sqrt{8xy^4}$

11 $\dfrac{15}{2\sqrt{75}}$

12 $5\sqrt{12}-\sqrt{300}+4\sqrt{27}$

13 $2\sqrt{2}\left(-8\sqrt{72}\right)$

14 $\sqrt{\dfrac{1}{80}}$

15 $10\sqrt{98}-3\sqrt{50}$

16 $\sqrt{15m^3n}\cdot\sqrt{6m^5n^2}$

17 $\dfrac{3\sqrt{10}}{\sqrt{15}}$

18 $-4\sqrt{25n}+2\sqrt{81n}+\sqrt{700n}$

19 $\sqrt{20mn}\cdot\sqrt{5m^3}$

20 $6\sqrt{\dfrac{11n^2}{3n}}$

WHEN THE VAMPIRE WENT TO THE CIRCUS, WHICH PERFORMER DID HE CHOOSE AS HIS FIRST VICTIM?

Simplify the expression, then find your answer in the adjacent answer column. Write the letter of the answer in each box containing the number of the exercise.

1 $\sqrt{\dfrac{2}{7}}$

2 $\sqrt{\dfrac{7}{12}}$

3 $\sqrt{\dfrac{5}{18}}$

4 $\sqrt{\dfrac{9}{50}}$

5 $\sqrt{\dfrac{40}{3}}$

answers

C $\dfrac{\sqrt{15}}{3}$

A $\dfrac{3\sqrt{2}}{10}$

O $\dfrac{\sqrt{14}}{7}$

V $\dfrac{5\sqrt{2}}{6}$

H $\dfrac{2\sqrt{30}}{3}$

L $\dfrac{\sqrt{10}}{6}$

Q $\dfrac{2\sqrt{7}}{10}$

W $\dfrac{\sqrt{21}}{6}$

6 $3\sqrt{2} + 8\sqrt{\dfrac{1}{2}}$

7 $10\sqrt{\dfrac{1}{5}} + \sqrt{45}$

8 $\sqrt{7} + \dfrac{\sqrt{7}}{2}$

9 $\sqrt{3} - \sqrt{\dfrac{1}{3}}$

10 $\sqrt{\dfrac{2}{3}} + 4\sqrt{\dfrac{1}{6}}$

answers

F $\dfrac{2\sqrt{3}}{3}$

U $5\sqrt{5}$

Y $\dfrac{\sqrt{6}}{3}$

N $\sqrt{6}$

K $\dfrac{2\sqrt{7}}{3}$

S $7\sqrt{2}$

I $\dfrac{3\sqrt{7}}{2}$

M $\dfrac{3\sqrt{5}}{2}$

11 $\sqrt{\dfrac{3}{4}} \cdot \sqrt{\dfrac{2}{3}}$

12 $\sqrt{\dfrac{7}{10}} \cdot \sqrt{\dfrac{7}{2}}$

13 $7\sqrt{10} - 2\sqrt{90} + 4\sqrt{\dfrac{1}{10}}$

14 $6\sqrt{\dfrac{1}{2}} - 4\sqrt{\dfrac{1}{8}}$

15 $8\sqrt{\dfrac{1}{6}} + \sqrt{24}$

answers

E $\dfrac{7\sqrt{10}}{5}$

J $\dfrac{\sqrt{2}}{2}$

D $\dfrac{5\sqrt{3}}{6}$

R $2\sqrt{2}$

P $\dfrac{7\sqrt{10}}{2}$

T $\dfrac{7\sqrt{5}}{10}$

G $\dfrac{10\sqrt{6}}{3}$

B $\dfrac{3\sqrt{2}}{2}$

| 5 | 13 | 2 | 13 | 10 | 12 | 6 | 12 | 14 | 4 | 8 | 15 | 5 | 12 | 9 | 1 | 14 | 12 | 7 | 15 | 13 | 5 | 3 | 15 | 13 | 14 |

Radical Expressions and Equations:
Simplifying Radical Expressions With Fractional Radicands

PUNCHLINE • Algebra • Book B
©2006 Marcy Mathworks

15.8