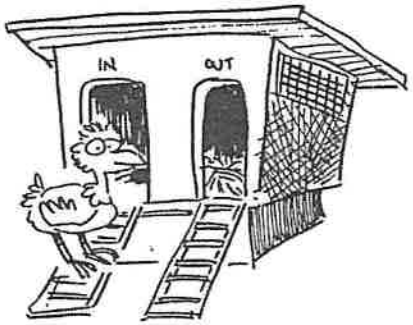
Why Does a Chicken Coop Have Only Two Doors?

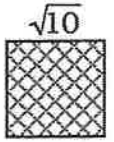


Simplify the expression. Write the letter of the exercise in the box above the answer.

T $\sqrt{49}$	D $-5\sqrt{144}$	O $4\sqrt{25} + 25\sqrt{4}$	R $\sqrt{25^2 - 15^2}$
O $\sqrt{2500}$	S $\sqrt{\frac{4}{9}}$	F $3\sqrt{100} \cdot 4\sqrt{9}$	I $2\sqrt{\frac{1}{225}}$
I $-\sqrt{16}$	F $\sqrt{64 + 36}$	R $\sqrt{0.49}$	D $\sqrt{5} \cdot \sqrt{5}$
U $2\sqrt{81}$	H $\sqrt{64} + \sqrt{36}$	A $8\sqrt{0.01}$	O $\left(\sqrt{72}\right)^2$

−4	360	0.4	$\frac{2}{15}$	7	24	14	0.8	−60	$\frac{2}{5}$	10	72	18	20	−90	5	70	50	0.7	$\frac{2}{3}$

For the exercises below, assume that all variables represent nonnegative numbers.

A $\sqrt{n^2}$	L $\sqrt{16n^{16}}$	N $\sqrt{4a^2b^2}$	S $2a\sqrt{b^2} + 3b\sqrt{a^2}$
O $-\sqrt{9n^2}$	A $\sqrt{36n^{36}}$	D $\sqrt{144a^6b^4}$	U $7b\sqrt{10{,}000a^8}$
I $\sqrt[3]{25n^4}$	E $5\sqrt{8100n^8}$	T $6\sqrt{64a^4b^{10}}$	D *What is the area of this square?* 
E $3\sqrt{100n^6}$	W $-8\sqrt{121n^{30}}$	B $-15\sqrt{16a^{100}b^2}$	

$-40a^{25}b$	$5n^2$	$48a^2b^5$	40	$-88n^{15}$	$-3n$	$700a^4b$	$4n^8$	$12a^3b^2$	$-56n^{10}$	$-60a^{50}b$	$450n^4$	$32a^3b^5$	n	$70a^2b^2$	$5ab$	$30n^3$	10	$6n^{18}$	$2ab$

What Did Dr. Drone Say To the Guy Who Thought He Was a $100 Bill?

Simplify the expression and find your answer in the adjacent answer column. Write the letter of the exercise in the box that contains the number of the answer. Assume that all variables represent nonnegative numbers.

- (G) $\sqrt{12}$
- (I) $\sqrt{50}$
- (O) $\sqrt{45}$
- (E) $\sqrt{600}$
- (S) $\sqrt{98}$
- (U) $\sqrt{48}$
- (O) $\sqrt{125}$
- (W) $\sqrt{162}$

- (9) $5\sqrt{2}$
- (2) $5\sqrt{5}$
- (35) $6\sqrt{2}$
- (33) $4\sqrt{3}$
- (14) $10\sqrt{6}$
- (20) $2\sqrt{3}$
- (5) $4\sqrt{5}$
- (23) $9\sqrt{2}$
- (36) $3\sqrt{5}$
- (19) $5\sqrt{3}$
- (4) $7\sqrt{2}$

- (A) $2\sqrt{18}$
- (O) $8\sqrt{28}$
- (G) $-3\sqrt{1000}$
- (E) $5\sqrt{75}$
- (D) $-4\sqrt{490}$
- (L) $9\sqrt{72}$
- (H) $-7\sqrt{80}$
- (O) $3\sqrt{144}$

- (6) 36
- (37) $-30\sqrt{3}$
- (18) $6\sqrt{2}$
- (21) $25\sqrt{3}$
- (16) $-28\sqrt{6}$
- (26) $54\sqrt{2}$
- (29) $16\sqrt{7}$
- (13) $-28\sqrt{5}$
- (24) $45\sqrt{3}$
- (11) $-30\sqrt{10}$
- (38) $-28\sqrt{10}$

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- (Y) $\sqrt{16n^2}$
- (N) $\sqrt{20n^2}$
- (H) $\sqrt{49n^3}$
- (T) $\sqrt{63n^3}$
- (O) $\sqrt{36n^4}$
- (L) $-\sqrt{200n^4}$
- (P) $\sqrt{900n^5}$
- (G) $\sqrt{60n^8}$

- (17) $7n\sqrt{n}$
- (7) $30n^2\sqrt{n}$
- (15) $3n^2\sqrt{5n}$
- (10) $2n\sqrt{5}$
- (25) $-10n^2\sqrt{2}$
- (12) $3n\sqrt{7n}$
- (27) $4n^4\sqrt{5}$
- (1) $2n^4\sqrt{15}$
- (31) $4n$
- (32) $6n^2$
- (30) $-10n^2\sqrt{2n}$

- (O) $\sqrt{25x^2y}$
- (D) $\sqrt{90x^4y^2}$
- (G) $\sqrt{81x^3y^4}$
- (I) $\sqrt{24x^2y^6}$
- (C) $\sqrt{15xy^3}$
- (P) $3\sqrt{500x^8y^2}$
- (N) $-2\sqrt{121x^3y}$
- (H) $4\sqrt{44x^6y^5}$

- (8) $30x^4y\sqrt{5}$
- (34) $-22x^2\sqrt{xy}$
- (28) $3x^2y\sqrt{10}$
- (5) $8x^3y^2\sqrt{11y}$
- (22) $xy\sqrt{15}$
- (24) $2xy^3\sqrt{6}$
- (37) $5x\sqrt{y}$
- (19) $-22x\sqrt{xy}$
- (16) $y\sqrt{15xy}$
- (3) $30y^4\sqrt{5y}$
- (35) $9xy^2\sqrt{x}$

1	2	3	4	5	6	7	8	9	10	11

12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38

What Has Four Legs, Is Green and Fuzzy, and Could Kill You If It Fell Out of a Tree?

Simplify the expression. Find your answer below and cross out the letter under it. The letters that remain will answer the title question.

1. $\sqrt{\frac{49}{4}}$
2. $\sqrt{\frac{20}{81}}$
3. $\sqrt{\frac{75}{x^4}}$
4. $\sqrt{\frac{64}{36a^2}}$
5. $\sqrt{\frac{54}{24}}$
6. $-\sqrt{\frac{60}{5}}$
7. $\sqrt{\frac{3x^3}{16x}}$
8. $\sqrt{\frac{22a^5}{200a}}$
9. $\frac{5}{\sqrt{2}}$
10. $\frac{4}{\sqrt{7}}$
11. $\frac{20}{\sqrt{5}}$
12. $\frac{10}{\sqrt{30}}$
13. $\sqrt{\frac{1}{18}}$
14. $\frac{5}{\sqrt{40}}$
15. $-\frac{9}{2\sqrt{45}}$
16. $\sqrt{\frac{8}{3}}$
17. $\sqrt{\frac{7}{2t}}$
18. $\frac{5\sqrt{3}}{\sqrt{10}}$
19. $\frac{2\sqrt{11t^2}}{\sqrt{6t}}$
20. $\frac{10\sqrt{6}}{\sqrt{15}}$

Answers – Even-Numbered Exercises

$\frac{4}{3a}$	$\frac{\sqrt{10}}{4}$	$\frac{\sqrt{7}}{14}$	$\frac{\sqrt{30}}{2}$	$\frac{2\sqrt{5}}{5}$	$\frac{4\sqrt{7}}{7}$	$-2\sqrt{3}$	$\frac{a^2\sqrt{2}}{5}$	$2\sqrt{10}$	$\frac{\sqrt{30}}{3}$	$-\sqrt{6}$	$\frac{2\sqrt{6}}{3}$	$\frac{2\sqrt{5}}{9}$	$\frac{\sqrt{10}}{6}$	$\frac{a^2\sqrt{11}}{10}$
S	T	A	U	P	A	S	O	N	T	O	P	A	L	D

Answers – Odd-Numbered Exercises

$\frac{\sqrt{7}}{4t}$	$\frac{5\sqrt{3}}{x^2}$	$\frac{\sqrt{66t}}{3}$	$\frac{\sqrt{2}}{6}$	$\frac{7}{2}$	$-\frac{\sqrt{3}}{20}$	$\frac{\sqrt{33t}}{6}$	$\frac{\sqrt{14t}}{2t}$	$\frac{x\sqrt{3}}{4}$	$4\sqrt{5}$	$\frac{\sqrt{15}}{4x^2}$	$-\frac{3\sqrt{5}}{10}$	$\frac{3}{2}$	$\frac{5\sqrt{5}}{2}$	$\frac{5\sqrt{2}}{2}$
T	O	R	E	D	A	B	I	G	O	L	D	M	E	N

After Naming Their First Three Children Eeney, Meeney and Miney, Why Are Mr. and Mrs. Klobber Naming Their Fourth Child "Mike"?

Simplify the expression. Write the letter of the answer in the box containing the exercise number. Then rearrange each set of letters to make a word.

1. $4\sqrt{7} + 2\sqrt{7}$
2. $8\sqrt{3} - 3\sqrt{3}$
3. $2\sqrt{6} - 9\sqrt{6}$
4. $16\sqrt{5} + \sqrt{5}$
5. $-3\sqrt{10} - 8\sqrt{10}$
6. $7\sqrt{x} - 15\sqrt{x}$

Answers 1-6

C. $-8\sqrt{6}$
T. $17\sqrt{5}$
E. $6\sqrt{7}$
S. $-7\sqrt{10}$
N. $-8\sqrt{x}$
Y. $-7\sqrt{6}$
W. $5\sqrt{5}$
O. $-11\sqrt{10}$
R. $-11\sqrt{x}$
H. $5\sqrt{3}$

13. $8\sqrt{11} + 6\sqrt{11} - \sqrt{11}$
14. $2\sqrt{15} - 5\sqrt{3} + 7\sqrt{15}$
15. $\sqrt{2} - 18\sqrt{7} - 5\sqrt{2} + 3\sqrt{7}$
16. $-9\sqrt{c} + 4\sqrt{d} - 4\sqrt{c} + 2\sqrt{d}$
17. $\sqrt{27} + \sqrt{75} + \sqrt{12}$
18. $\sqrt{63} - \sqrt{28} + \sqrt{700}$

Answers 13-18

E. $-4\sqrt{2} - 15\sqrt{7}$
R. $-13\sqrt{c} + 10\sqrt{d}$
H. $10\sqrt{3}$
T. $9\sqrt{15} - 5\sqrt{3}$
S. $-4\sqrt{2} + 12\sqrt{7}$
V. $11\sqrt{7}$
L. $13\sqrt{3}$
O. $13\sqrt{11}$
A. $-13\sqrt{c} + 6\sqrt{d}$
P. $16\sqrt{7}$

7. $\sqrt{8} + \sqrt{50}$
8. $-\sqrt{12} + \sqrt{300}$
9. $3\sqrt{20} + 8\sqrt{45}$
10. $\sqrt{150} - 7\sqrt{24}$
11. $-2\sqrt{90} - 5\sqrt{40}$
12. $3\sqrt{98} - 6\sqrt{18}$

Answers 7-12

N. $-16\sqrt{10}$
D. $7\sqrt{2}$
L. $27\sqrt{5}$
T. $-9\sqrt{6}$
E. $-13\sqrt{10}$
T. $8\sqrt{3}$
W. $3\sqrt{2}$
R. $-6\sqrt{6}$
A. $30\sqrt{5}$
P. $5\sqrt{2}$

19. $5\sqrt{8} + 9\sqrt{200} + \sqrt{32}$
20. $-2\sqrt{54} + 7\sqrt{150} + 3\sqrt{144}$
21. $-4\sqrt{500} + 6\sqrt{44} - \sqrt{80}$
22. $8\sqrt{12t} + \sqrt{300t} - 2\sqrt{27t}$
23. $-10\sqrt{9t} + 3\sqrt{36t} - \sqrt{50t}$
24. $5\sqrt{160t} + 12\sqrt{75t} - 4\sqrt{250t}$

Answers 19-24

L. $-10\sqrt{t} - 5\sqrt{2t}$
M. $60\sqrt{3t}$
Y. $29\sqrt{6} + 36$
R. $-44\sqrt{5} + 9\sqrt{11}$
A. $104\sqrt{2}$
O. $20\sqrt{3t}$
L. $25\sqrt{6} + 36$
N. $-44\sqrt{5} + 12\sqrt{11}$
T. $45\sqrt{3t}$
E. $-12\sqrt{t} - 5\sqrt{2t}$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Rearrange each set of letters to make a word. Write the word in the set of boxes below.
