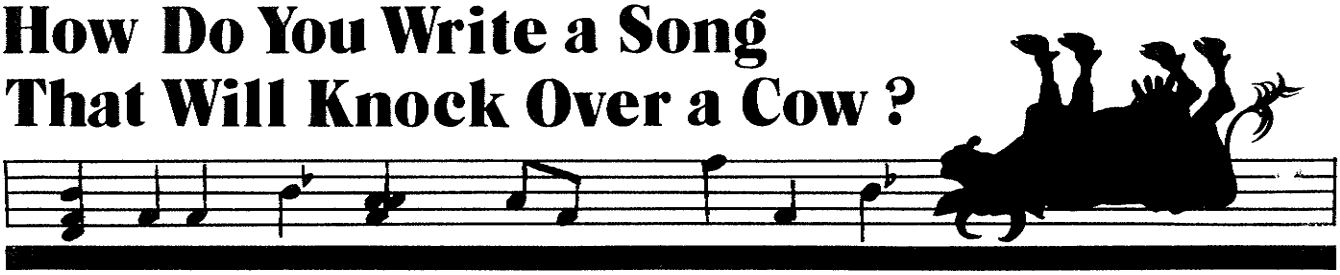
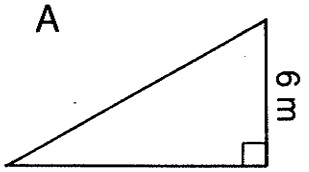
How Do You Write a Song That Will Knock Over a Cow ?



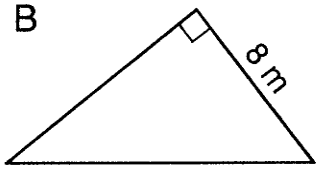
Solve each problem below. Cross out the box that contains your answer. When you finish, print the letters from the remaining boxes in the spaces at the bottom of the page.

(1) For each right triangle, find the length of the side that is not given:

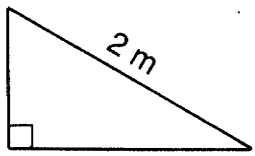
A



B

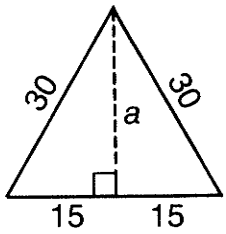


C



(2) A rectangle is 7 cm wide and 10 cm long. Find the length of a diagonal of the rectangle.

(3) Each side of an equilateral triangle measures 30 cm. Find the length of an altitude, *a*, of the triangle.

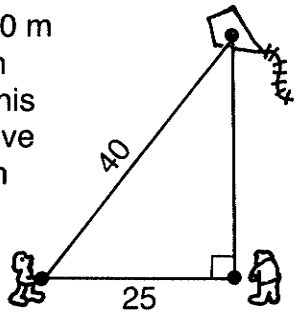


(4) A television set may be described in terms of the diagonal measure of its screen. If a TV screen is 16 inches by 12 inches, what is the length of its diagonal?

(5) A 20-foot ladder is leaned against a wall. If the base of the ladder is 8 feet from the wall, how high up on the wall will the ladder reach?

(6) The bases of a softball diamond are 60 feet apart. How far is it from home plate to second base?

(7) Jack has let out 40 m of kite string when he observes that his kite is directly above Jill. If Jack is 25 m from Jill, how high is the kite?



BY	IN	SO	TH	BE	AT	ER
$\sqrt{7200}$ ft	$\sqrt{123}$ m	$\sqrt{105}$ m	$\sqrt{675}$ cm	$\sqrt{6400}$ ft	$\sqrt{975}$ m	$\sqrt{149}$ cm
$\doteq$84.9 ft	$\doteq$11.1 m	$\doteq$10.2 m	$\doteq$26.0 cm	$=$80 ft	$\doteq$31.2 m	$\doteq$12.2 cm
EF	OR	NG	FL	IT	BE	AT
$\sqrt{850}$ m	$\sqrt{336}$ ft	$\sqrt{157}$ m	$\sqrt{425}$ cm	$\sqrt{1}$ m	$\sqrt{400}$ in.	$\sqrt{380}$ in.
$\doteq$29.2 m	$\doteq$18.3 ft	$\doteq$12.5 m	$\doteq$20.6 cm	$=$1 m	$=$20 in.	$\doteq$19.5 in.

Why Didn't Krok Like to Go Sailing With the Baseball Uniform Designer?

Simplify each expression below and find your answer in the corresponding answer column. Write the letter of the exercise in the box that contains the number of the answer.

(L) $\sqrt{8}$
(I) $\sqrt{45}$
(A) $\sqrt{50}$
(T) $\sqrt{12}$
(O) $\sqrt{98}$
(S) $\sqrt{48}$
(E) $\sqrt{125}$

(18) $7\sqrt{2}$
(14) $5\sqrt{5}$
(12) $2\sqrt{2}$
(4) $5\sqrt{2}$
(28) $4\sqrt{3}$
(20) $2\sqrt{3}$
(25) $3\sqrt{5}$

(S) $5\sqrt{18}$
(U) $3\sqrt{28}$
(A) $2\sqrt{1000}$
(P) $\sqrt{1,000,000}$
(E) $3\sqrt{128}$
(K) $8\sqrt{27}$
(L) $4\sqrt{80}$

(19) $6\sqrt{7}$
(13) $24\sqrt{3}$
(3) $24\sqrt{2}$
(9) $15\sqrt{2}$
(5) $16\sqrt{5}$
(23) 1000
(16) $20\sqrt{10}$

(A) $\sqrt{20}$
(S) $\sqrt{72}$
(Y) $\sqrt{63}$
(E) $\sqrt{144}$
(W) $\sqrt{32}$
(D) $\sqrt{75}$
(A) $\sqrt{200}$

(8) $3\sqrt{7}$
(1) $6\sqrt{2}$
(7) $10\sqrt{2}$
(6) $4\sqrt{2}$
(22) $2\sqrt{5}$
(27) 12
(15) $5\sqrt{3}$

(H) $-3\sqrt{54}$
(A) $-7\sqrt{40}$
(B) $-8\sqrt{121}$
(S) $2\sqrt{500}$
(T) $-4\sqrt{24}$
(Z) $3\sqrt{175}$
(C) $5\sqrt{108}$

(10) $-8\sqrt{6}$
(21) $30\sqrt{3}$
(11) $-14\sqrt{10}$
(24) $20\sqrt{5}$
(26) $15\sqrt{7}$
(2) $-9\sqrt{6}$
(17) -88

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

OBJECTIVE 3–d: To simplify square roots of numbers that have perfect square factors.