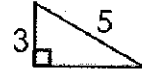


Examples: Solve. Answer each question to the nearest tenth.

Use the π button (not the approximation 3.14)



Pythagoras

2-step equations

a) $25 = 7x + 4$

Equations with brackets

b) $4(x - 3) = 4x - 2(x + 1)$

c) $a^2 + b^2 = c^2$

Simplify, then solve

d) $125 = \pi(4.5)^2 + \pi(4.5)h$

Exponents!

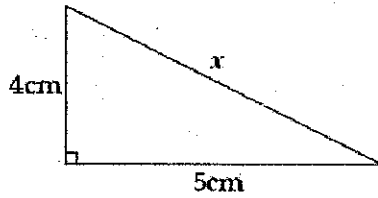
e) $142.6 = \frac{4}{3}\pi r^3$

Your Turn! Complete the back of this page, and the puzzle handout!

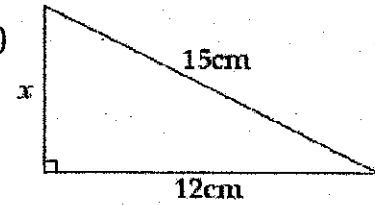
Answer each question to the nearest tenth. Use the π button (not 3.14). Then complete the puzzles.

1. Solve for x .

a)



b)



2. Solve for h .

a) $392.7 = \frac{1}{3}\pi(4.6)^2h$

b) $9541 = \pi(34.1)^2 + \pi(34.1)h$

3. Solve.

a) $34.6 = \frac{1}{3}b^2(14)$

b) $108 = \frac{4}{3}\pi r^3$

FIND A MATCH

Solve any equation in the top block and find the solution in the bottom block. Transfer the word from the top box to the corresponding bottom box. Keep working and you will get another corny joke.

| | | | |
|-------------------------------|------------------------------|------------------------------|------------------------------|
| ① $4x - 6 = 22$ THEY | ⑤ $-4x + 6 = -42$ BECAUSE | ⑨ $1 - 9n = -80$ AN | ⑬ $-5n + 9 = -46$ COSTS |
| ② $9x + 2 = 47$ IT | ⑥ $-11x + 4 = 26$ A | ⑩ $-5 - 15n = 10$ FARMERS | ⑭ $-27 + 4n = 33$ EAR |
| ③ $2x + 1 = -15$ SOMETHING | ⑦ $8x - 18 = 6$ ARE | ⑪ $12n + 2 = -46$ CORN | ⑮ $-7n - 20 = -48$ PIRATE |
| ④ $-6x - 11 = 49$ SOME | ⑧ $7 + 3x = 25$ CALL | ⑫ $-4 - 2n = 60$ SELLING | ⑯ $19 - 3n = 82$ BUCK |
| $x = -10$ | $n = -1$ | $x = 3$ | $n = -32$ |
| $x = -8$ | $x = 7$ | $x = 6$ | $n = 4$ |
| $n = -4$ | $x = 12$ | $x = 5$ | $n = 11$ |
| $x = -2$ | $n = -21$ | $n = 9$ | $n = 15$ |

What Is The Title Of This Picture?

CODED TITLE:

18 6 6 2 5 7 2 5 3 6 5

7 4 4 7 8 5 3 7

13 6 2 1 3 1 3 8 4 13 7 2

TO DECODE THE TITLE OF THIS PICTURE:

Solve any equation below and find the solution in the code above. Each time the solution appears, write the letter of that exercise above it. Keep working and you will discover the title.

I $5(x + 4) = 40$

E $-2(3y - 7) = 56$

C $6(1 - 4w) = -18$

F $4(2x + 5) - 8 = 36$

A $2(5 - 3v) + 9v = 28$

S $7 - 3(5t - 10) = 67$

N $-9(6 + u) - 2u = -10$

J $13x + 7(-3x - 1) = -63$

H $15 - (4m - 5) = 32$

O $-2(-7k + 4) + 9 = -13$

U $-5y - 5(-6 - 2y) = 0$

D $3(1 + 4n) - 2(5n - 3) = 25$

R $-6(x - 2) + 4(3 - 6x) = -36$

Q $5(4 + 2x) - (8x - 12) = 68$

T $-3(-4 - 6y) + 7(-y + 5) = -8$

M $8(2w - 6) + 4(-1 - 5w) = 0$

