

Why Didn't the Astronauts Land on the Moon?

Solve each problem, then cross out the letter next to the correct answer. When you're finished, the answer to the title question will remain.

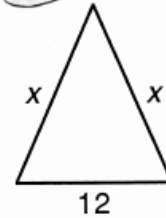
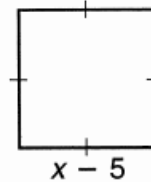


D	1075 ft
L	5°F
O	600
H	$-13\frac{1}{3}$
L	6 h
P	7.5 min
N	144 ft
U	\$8400
O	44
F	7 s
O	4 h
S	156 ft
D	\$7200
A	\$760
M	5 h
H	3°F
W	1250 ft
T	6.4 min
S	9 s
H	16
I	540
T	\$640

1 Solve. $4(x - 9) = 7x + 4$

2 The square and the triangle have equal perimeters.

- A. Find the value of x .
- B. Find the perimeter.



3 Omega just got her pilot's license and wants to rent a plane. The Platinum Plane Company charges \$180 plus \$92 per hour to rent a plane. The Plastic Plane Company charges \$250 plus \$78 per hour.

- A. For what number of hours would the companies charge the same amount?
- B. What would the charge be for that number of hours?

4 The launch site for Trigon Balloon Co. is 250 ft above sea level. A hot-air balloon is launched from the site and begins to rise at a rate of 110 ft/min. At the same time, another balloon 2200 ft above sea level begins to descend at a rate of 150 ft/min.

- A. How long will it be until the balloons are at the same elevation?
- B. What will their elevation be then?

5 The temperature in Coldspot is -7°F and increasing 2.5° per hour. The temperature in Frostberg is 19°F and decreasing 4° per hour.

- A. How long will it be until the temperatures are the same?
- B. What will the temperature be then?

6 Trendy T-Shirts has decided to manufacture a new design. It will cost \$400 plus \$3 per shirt to produce them, and Trendy plans to spend \$5000 on advertising. The shirts will sell for \$12 each.

- A. How many shirts must be sold to break even (total cost equals income from sales)?
- B. What is Trendy's income (or total cost) for that many shirts?

7 Romeo and Juliet first saw each other when they were 270 feet apart. Romeo began running toward Juliet at a rate of 16 ft/s. At the same moment, Juliet began running toward Romeo at a rate of 14 ft/s.

- A. How many seconds after they started running will they meet?
- B. How far will Romeo have run then?