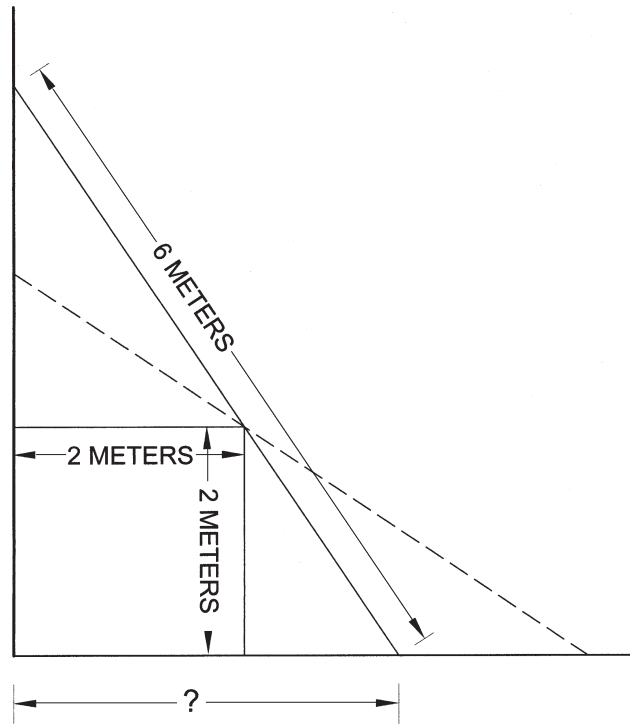


Problem  
**140**

by Dave Lindell, L.S.

A 6-meter-long ladder leans against a wall and a 2-meter-deep and 2-meter-high shed. How far is the foot of the ladder from the wall?



Problem  
**141**

by Benjamin Bloch, Ph.D.

Every positive number can be placed in one of nine columns headed by the single digits **1** through **9**.

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	39	40	41	42	43	44	45

*Review*

You can immediately find the single digit column heading every positive number by adding the digits in that number until a single digit is obtained. To indicate that you are reducing a number to its single digit column you write it as:  $137 \Rightarrow 11 \Rightarrow 2$ . Thus, the number 137 falls under the column headed by the single digit **2**. The final digit is called the SDQ or single digit quality.

**Without doing the actual operation, determine the SDQ of the following:**

- $9 \times 156,405.8072 \Rightarrow ?$
- $126.447 \times 205,144.36 \times 0.09 \Rightarrow ?$
- $2 \times 2 \times 2 \times 2 \times 2 \times 40.5 \Rightarrow ?$
- $1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 \times 9 \Rightarrow ?$
- $1.80 \times 6^{11} \Rightarrow ?$