#1

- Solve for N

$2022 - 1972 = 50$

- Plug in N=50 into the given formula:

$10016\left(0.65 + 0.42\right)^{50}$

$\Rightarrow 0.65 + 0.42 = 1.07$

$10016\left(1.07\right)^{50}$

$\Rightarrow 1.07^{50} = \underbrace{1.07 \cdot 1.07 \cdots 1.07}_{50}$

$= 29.457$

$10016\left(29.457\right) = 295041.312$

$= 295041$

Topics to review

* Exponent
* powers and base
* order of operations

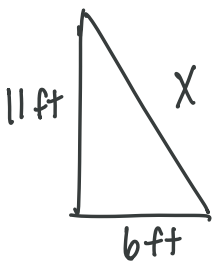
$2^3 = 2 \times 2 \times 2$

"multiply 2 by itself, 3 times"

* rounding

#2

Solve for X.



X: Hypotenuse

11: Side #1

6: Side #2

* Commutative property

$(\text{Hypotenuse})^2 = (\text{Side } 1)^2 + (\text{Side } 2)^2$

$X^2 = 11^2 + 6^2$

$(X)^2 = (11)^2 + (6)^2$

$X^2 = 121 + 36$

$\sqrt{X^2} = \sqrt{157}$

$X = 12.5$ ft

* square roots

$\sqrt{X^2} = X$

$\sqrt{4^2} = 4$

#4

Box A = L

Box B = Twice the size of Box A
= Twice the size of L
= $2 \cdot L$

Box C = Quarter of Box A
= Quarter of L
= $1/4 \cdot L$

Box D = Sum of Box B and Box C
= Box B + Box C
= $2 \cdot L + 1/4 \cdot L$
= $L(2 + 1/4)$
= $L\ 2\frac{1}{4} = L\ 2.25 = L\ \frac{9}{4} = \frac{9L}{4}$

* Factoring
* Improper fractions

Problem 6

Angela paid $8.25 for her lunch. Terri paid 25% more for her lunch than Angela did. How much did Terri pay for her lunch?

(A) $10.31
(B) $8.50
(C) $11.25
(D) $6.19

Problem 7

Rose has a job painting coffee tables at a warehouse. When she comes to work in the morning, she spends 30 minutes preparing the area where she paints. Then, it takes her 45 minutes to paint each piece of furniture. Let T = time and c = the number of coffee tables.

(1) Which equation shows the time it takes for Rose to prepare and then paint c coffee tables?

(A) $T = 30 \times C \times 45$
(B) $T = 45 + 30 \times C$
(C) $T = 45 \times C + 30$
(D) $T = 30 + 45$

$T = 30 + (45 \times C)$
$= 30 + C \times 45$

30 + ↓
C = 1 ⇒ 45
C = 2 ⇒ 45 + 45 = 90
⇒ 45 × 2 = 45 × C
C = 3 ⇒ 45 × 3 = 45 × C
⋮
C = C ⇒ 45 × C

(2) If C = 4, what does T equal?

(A) 3 hours and 30 minutes
(B) 2 hours and 30 minutes
(C) 3 hours and 50 minutes
(D) 2 hours and 50 minutes

$T = 45 \times C + 30$
$= 45 \times 4 + 30$
$= 180 + 30$
$= 210$ minutes

(* 60 min = 1 hr)

$\frac{210}{60} = 3.5$ hours
= 3 hours and 30 mins.