

#1) a) $2+3=5$ b) $4+(-5)=-1$ c) $-2-(+9)=-11$

d) $3-(-6)=9$ e) $2 \times 4=8$ f) $-3 \times 1=-3$

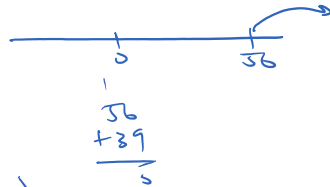
g) $6 \div 2=3$ h) $-10 \div 2=-5$ i) $-8 \div (+4)=-2$

#2)

a) $14+(-25)=-11$



b) $56 - (-39) = 95$



c) $-104 + (-85) = -189$



d) -169

e) 53

f) 242

g) -7

h) -42

i) -9

j) 150

k) 7

l) 88

m) -2800

n) 10

o) -200

#3)

a) $7 \times (-29)$

7	-20	-9
	-140	-63

$= -203$

b) -9×72

-9	70	2
	-630	-18

$= -648$

c) 4×44

4	40	4
	160	16

$= 176$

#4) a) $-1^5 = -1 \times 1 \times 1 \times 1 \times 1 = -1$

b) $(-1)^5 = (-1) \times (-1) \times (-1) \times (-1) \times (-1) = -1$

c) $4^3 = 4 \times 4 \times 4 = 64$

d) $(-2)^4 = (-2) \times (-2) \times (-2) \times (-2) = 16$

$$\#5) \quad a) -4 \qquad b) (8-4) \times 3$$

$$8 - \underline{4 \times 3} = 4 \times 3$$

$$8 - 12 = 12$$

$$= -4 //$$

$$c) \frac{16}{8} - 4 \times 2 \qquad d) 3 \times 2^3 \div 8 - 3$$

$$= 2 - 4 \times 2 = 3 \times 8 \div 8 - 3$$

$$= 2 - 8 = 24 \div 8 - 3$$

$$= -6 = 3 - 3$$

$$= 0$$

$$(-9)^2 = (-9)(-9)$$

$$= 81$$

$$5'e) \quad \underline{(3-6)^3 \div 3^2 \times 3}$$

$$(-3)^3 \div 9 \times 3$$

$$\underline{-27 \div 9} \times 3$$

$$-3 \times 3$$

$$= -9 //$$

$$f) 9 - \underline{3^4} \div (-9)^2 \times 27$$

$$9 - 81 \div (81) \times 27$$

$$9 - 1 \times 27$$

$$9 - 27$$

$$= -18 //$$

$$g) 3 - \underline{[2 - (2-3)]} + \underline{(3-4)} \times 7 - 9.$$



$$3 - [2 - (-1)] + (1) \times 7 - 9$$

$$3 - 3 + 1 \times 7 - 9$$

$$\cancel{3 - 3} + 7 - 9$$

$$= -2 //$$

$$h) \quad \frac{(-2)^3 - 3^2 + (-1)^4}{64 \div 2^4 \div (-4)}$$

$$\frac{-8 - 9 + 1}{64 \div 16 \div (-4)}$$

BEDMAS
= = 1 1 5

$$(-1)^4 = (-1) \times (-1) \times (-1) \times (-1)$$

$$= 1 \times 1 = 1$$

$$2^4 = \frac{2 \times 2}{4} \times \frac{2 \times 2}{4}$$

$$= 9 - 1$$

$$= \frac{-8 - 9 + 1}{4 \div (-4)}$$

$$-8 - 9$$



$$= \frac{-8 - 9 + 1}{(-1)}$$

$$= \frac{-17 + 1}{-1}$$

$$= \frac{-16}{-1} = 16 //$$

$$i) \frac{5 + (-25) - 10 \div 2 + 4^2}{4 \times 2 - 1 + (-2)^3 - (-4)}$$

$$\frac{5 + (-25) - 10 \div 2 + 16}{4 \times 2 - 1 + (-8) - (-4)}$$

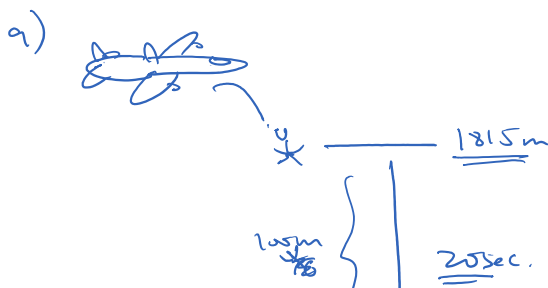
$$\frac{5 + (-25) - 5 + 16}{8 - 1 + (-8) - (-4)}$$

$$\frac{-20 - 5 + 16}{7 + (-8) - (-4)}$$

$$\frac{-25 + 16}{-1 - (-4)} = \frac{-9}{3} = -3 //$$

$$8) \text{ CHANGE} = \frac{-16,000}{8}$$

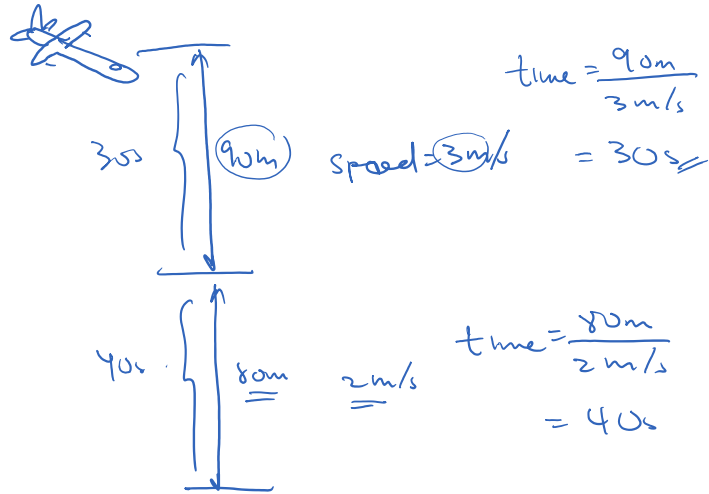
$$= -2,000 \leftarrow \text{losing } 2000 \text{ pp/yr}$$



$$\text{CHANGE} = \frac{10500m}{205}$$

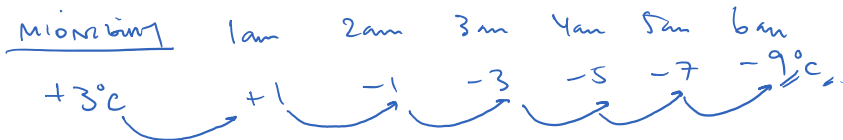
$1815 - 815 = 1000m$
 $1000m \div 20sec = 50m/s$
 Dropping 50m/s

#12)



Total Time = 70s

#15)



#11)

Scores: 87%, 74%, 65%, 92%, 82%

average = $\frac{87 + 74 + 65 + 92 + 82}{5}$

$= \frac{400}{5} = 80\%$