PC 1-2   p.19   (2, 8, 9, 11-16, 18)

2- mean $= \frac{1}{6} \sum_{i=1}^{6} x_i$ where x_i is an element in the set

8- 27 items in the sum, 27 is the subscript of the last subscripted variable; x_{27}.

9- $x_4 + x_5 + x_6 + x_7 + x_8$

11- a) 28 students

b) 4

c) $\dfrac{(0)(4) + (1)(7) + 2(7) + 3(4) + 4(2) + 5(1) + 6(0) + 7(1)}{28}$

$= \dfrac{55}{28} = \boxed{1.96 \approx 2 \text{ siblings}}$

12- a) $\dfrac{4}{28} , \dfrac{9}{28} , \dfrac{7}{28} , \dfrac{4}{28} , \dfrac{2}{28} , \dfrac{1}{28} , \dfrac{0}{28} , \dfrac{1}{28}$

b) $\left(\dfrac{4}{28}\right)(0) + \left(\dfrac{9}{28}\right)(1) + \left(\dfrac{7}{28}\right)(2) + \left(\dfrac{4}{28}\right)(3) + \left(\dfrac{2}{28}\right)(4) + \left(\dfrac{1}{28}\right)(5) + \left(\dfrac{0}{28}\right)(6) + \left(\dfrac{1}{28}\right)(7)$

$= \boxed{1.96 \approx 2 \text{ siblings}}$

13- Visual: 4/12   Content: 5/12   Sources: 3/12

$7(4/12) + 8(5/12) + x(3/12) = 7.92$

$\dfrac{28}{12} + \dfrac{40}{12} + \dfrac{3}{12}x = 7.92$

$\dfrac{3}{12}x = \dfrac{169}{75}$

$\boxed{x = 9.01}$

14 — a) $(300)(14.23) + (200)(11.55) + (500)(12.48) + (100)(13.72) + (400)(16.03) +$
$(200)(15.45) + (100)(14.85) + 300(13.26) = ^\$ \underline{29\,172}$

2100 Shares

$= ^\$ \boxed{13.89/share}$

b) $(400)(@10.28) = ^\$ 4112$

$(400)(@16.03) = ^\$ 6412$

$^\$ 6412 - ^\$ 4112 = ^\$ 2300$

$29172 - 2300 = ^\$ \dfrac{26,872}{2100} = \$ 12.80/share$

$\$ 13.89 - 12.80 = \boxed{\$ 1.09/share \quad lower}$

15 — a) $(.75)(78) + (.15)(85) + (.10)(92) = \boxed{80.45}$

b) $(.13\frac{1}{3})(78) + (.13\frac{1}{2})(85) + (.13\frac{1}{3})(92) = \boxed{85}$

or

$\dfrac{78 + 85 + 92}{3} = \boxed{85}$

16 — a) a score of 87

b) 1885

c) $\dfrac{1885}{24} = \boxed{78.5, the\ class\ average}$

d) $\dfrac{80 + 82}{2} = \boxed{81}$

e) 75

18 — $\dfrac{(21)(164) + (69)(x)}{90} = 170$ $\boxed{X = 171.8}$