Student 4: High Achieved

NZQA Intended for teacher use only

Weekly rent for industrial – 15 floors
Inside offices 16 x 65 = $1040 per floor = $15600 inside offices for entire building

Outside offices first floor = 28 x 103 = $2884

Entire building (outside offices)

$$s_n = \frac{n}{2}(2a + (n-1)d) \times 28$$
$$= 7.5(206 + 14 \times 3) \times 28$$
= $52080 a week outside offices

Entire building a week = $67680 (15 floors) (1)

Weekly rent for a city centre building 15 floors

Inside offices 8 x 102 = $816 per floor
816 x 15 = $12240 entire building (inside)
Outside offices first floor = 24 x 120 = 2880 per week

All outside offices in the building

$$s_n = \left(\frac{a(1-r^n)}{(1-r)}\right) \times 24 = \left(\frac{120(1-1.05^{15})}{(1-1.05)}\right) \times 24$$ =$62146.32

Entire building per week 15 floors = $74386 (2)

Two 15 floor buildings

Industrial = $67680 a week
City centre = $74386 per week

Add one floor to industrial
$t_n = a + (n-1)d = 103 + 15 \times 3 = 148$
67680+148 x 28 +15600 = $87424 per week for 16 floor building rent (indus)

Weekly floor rent for any floor in industrial

$(103 + (floor - 1) \times 3) \times 28 + 1040$
Weekly floor rent for any floor in city centre

$(120 \times 1.05^{floor-1}) \times 24 + 816$