

Straight line depreciation

1

a

Year	Price (dollars)
0	33 000
1	29 000
2	25 000
3	21 000
4	17 000
5	13 000

b Yes

c Straight Line Depreciation

2

a 700

b 41 700

3

a \$245 100

b \$198 100

4

a 3 years

b 9.09%

5

a \$14 000

b \$4 357 000

6

a Straight line

b 7000

7

a Straight line

b \$101 400

c 62 years

 8

a \$4700

b \$700

9

a \$26 500

b \$19 000

c \$9000

10

a $V_n = V_{n-1} - 1\,300, V_0 = 29\,000$

b \$22 500

c 9 years

11

a 8 years

b 5 years

12

a \$2200

b \$11 per 100 pages

c \$1947

d 3900 copies

13

a \$2800

b \$14 per 100 pages

c \$2464

d 3200 copies

14

a $V_{n+1} = V_n - 12, V_0 = 70\,000$

b \$360

c 900

15

a $V_{n+1} = V_n - 190, V_0 = 48\,000$

b \$45\,720

c 6 000 km

16

a \$0.94/unit

b \$446 500

c \$282 000

17

a \$0.29/unit

b \$31 900

c 11.31 years

Straight line depreciation graphs

18

a \$36 000

b \$7200

c 3 years

d \$7200

19

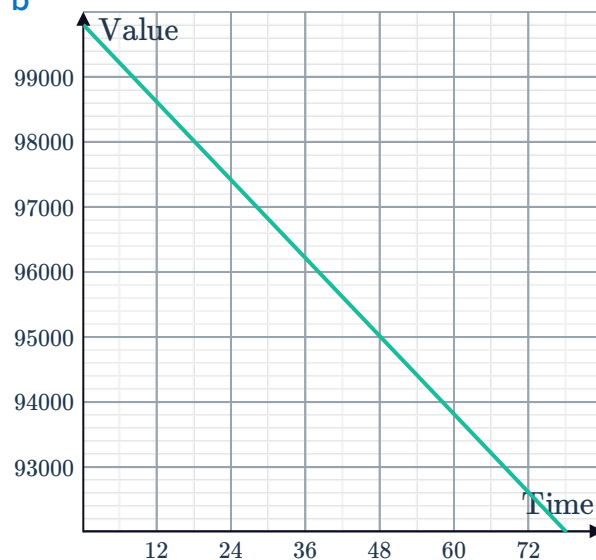
a \$100

c -100

e \$99 800

g $V = 99\,800 - 100n$

b



d The monthly depreciation.

f The initial purchase value of the shares.

h \$99 250

20

a \$160

c $V_n = V_{n-1} - 10, V_0 = 160$

b \$10

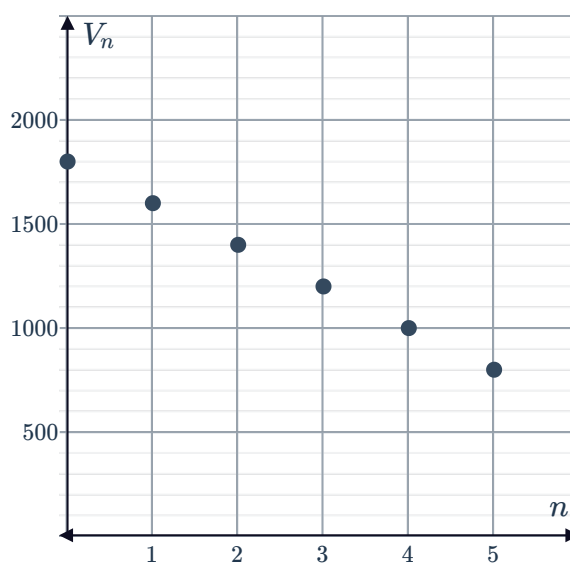
21

a $V_n = V_{n-1} - 300, V_0 = 1\,900$

c 7 years

b 4 years

22



Reducing balance depreciation

23 \$897.65

24 \$161.83

25 \$6779.41

26 \$13 025 912

27

a \$2234

b \$1085

28

a 6%

b \$18 856.91

29 \$5840.56

30 3.71%

31 4.30%

32 4 years

33

a 18%

b \$59 843.60

c $V_n = 0.82V_{n-1}, V_0 = 89\,000$

d 2 029

34

a 89%

b 79.21%

c 70.50%

d 6

e 20 years

35

a \$247

b 81%

36

a 3 years

b 7 years

c 22 years

37

a Reducing balance

b \$40 562.09

38

- a \$456
- b \$3344
- c $V_n = 0.88V_{n-1}, V_0 = 3\,800$
- d 6 years

39

- a 81%
- b \$324
- c $V_n = 0.81V_{n-1}, V_0 = 400$
- d \$74.12

40

- a \$21 000
- b 11%
- c \$7357.48
- d 33

41

- a \$900
- b 28%
- c \$241.86
- d 2015

42

- a $r = 18\%$
- b $V_{n+1} = 0.82V_n, V_0 = 2\,600$
- c 10 years

43 \$38 987.97

44

- a $V_n = 0.96V_{n-1}, V_0 = 390\,000$
- b \$317 995.35
- c $V_n = 0.92V_{n-1}, V_0 = 317\,995.35$
- d \$177 392.63

45

- a $r = 14.00\%$
- b $V_n = 0.86V_{n-1}, V_0 = 40\,000$
- c 11 years

46

- a Portfolio B
- b Portfolio B
- c 2027

47

- a $A_{n+1} = 0.88A_n, A_0 = 19\,000$
- b $B_{n+1} = 0.86B_n, B_0 = 22\,000$
- c \$8823.68
- d \$8900.48
- e Car B

48

- a 0.01
- b $A = 38\,200 \times 0.99^n$
- c \$35 964.54
- d Motorbike

