

A Chance and data: Scatter plots and line of best fit

Skill 9.7

The following information relates the length of silver chain (cm) to its value (\$) – this jewellery includes a silver locket.

- Plot the data on a scatter plot and find the equation of the line of best fit.
- How much is the locket worth on its own?
- How much is this jewellery worth if the chain is 60 cm long?

Length (cm)	Value (\$)
70	50
23	30
10	25
50	40
30	35
5	22

B Chance and data: Probability of single and complementary events

Skill 9.8

Disks with the following numbers are placed in a bag
(1, 2, 2, 3, 3, 3, 4, 4, 5, 5, 5, 5)

- Find the probability of selecting an even numbered disk.
- Find the probability of selecting an odd numbered disk.
- Show that events 1 and 2 above are complementary.
- Find the probability of choosing a number greater than 3.
- Find the probability of choosing a number less than 4 or divisible by 5.

C Chance and data: Displaying sample spaces

Skill 9.9

One bag contains red counters numbered 1 to 7 and another bag contains blue counters numbered 8 to 12. List the sample space of choosing:

- One disk from each bag.
- One disk from the first bag, it being replaced and another disk selected from the same bag.

D Calculators: Fractions

Skill 10.4

Calculate:

- $\frac{2}{5} + \frac{1}{6} + \frac{2}{7} + \frac{5}{8}$
- $6\frac{1}{4} \times 2\frac{1}{3} \times 1\frac{1}{5} \times 2\frac{1}{6}$
- $3\frac{1}{8} \left(4\frac{1}{3} + 2\frac{1}{2} - 6\frac{1}{4} \right)$
- $\frac{2\frac{1}{2} + 5\frac{1}{4} + \frac{3}{8}}{\frac{1}{2}}$
- $9\frac{2}{3} \left(5\frac{1}{4} - 6\frac{1}{2} + 12\frac{1}{8} \right)$
- $3\frac{1}{4} \div 2\frac{1}{5} \times 5\frac{1}{4}$
- $\frac{6\frac{2}{3} - 8\frac{1}{4} - \frac{5}{7}}{\frac{2}{3}}$
- $13\frac{1}{2} \left(1\frac{1}{2} - 6\frac{1}{4} + 11\frac{1}{4} \right)$
- $\frac{5\frac{1}{4} + 3\frac{1}{8} + 6\frac{1}{3}}{3\frac{1}{9}} - 17\frac{1}{2}$
- $3\frac{2}{3} + 5\frac{1}{4} + 6\frac{2}{3} \times \frac{3}{4}$

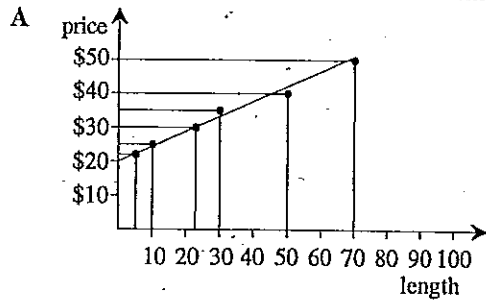
E Calculators: Using the memory function

Skill 10.5

Calculate to 2 decimal places:

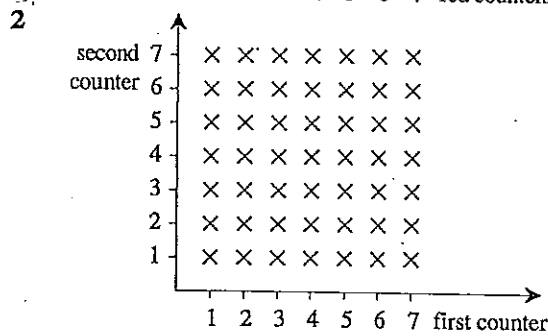
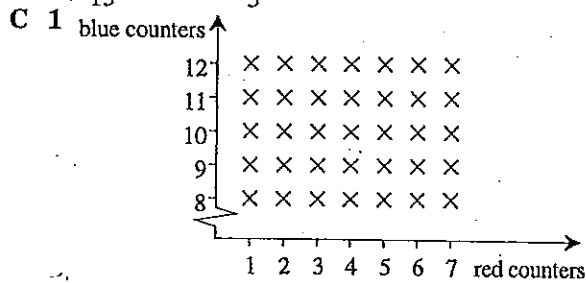
- $13.02 \times \pi + 6.04 \times 3.09$
- $14(3.8 + 6.3) + \frac{2}{\pi}$
- $14.07^2 + 3 \times 0.09 - 6.03 \times 1.04$
- $33.2^2 - 2.04 \times 3 + \frac{6.09}{8}$
- $\sqrt{1.02 + 5.8} + 6.09 \times 3$
- $3\pi + 2(5.02 + 3.8)$
- $\pi(3 + \sqrt{2})$
- $\frac{4\pi(3.08 + 15.2)}{3.09}$
- $\frac{15.02}{3.1} + \frac{\pi}{3} - 11.2$
- $\frac{18(4\pi + 3 - 2)}{\sqrt{2}}$

Worksheet 38



1 $V = \frac{20L}{43} + 20$ 2 \$20 3 \$47.90

B 1 $\frac{4}{13}$ 2 $\frac{9}{13}$ 3 Since $\frac{4}{13} + \frac{9}{13} = 1$
 4 $\frac{7}{13}$ 5 $\frac{11}{3}$



D 1 $1\frac{401}{840}$ 2 $37\frac{11}{12}$ 3 $1\frac{79}{96}$
 4 $15\frac{7}{8}$ 5 $105\frac{1}{8}$ 6 $7\frac{133}{176}$
 7 $-3\frac{25}{56}$ 8 $87\frac{3}{4}$ 9 $-12\frac{173}{224}$
 10 $13\frac{11}{12}$

E 1 59.57 2 142.04 3 191.96
 4 1096.88 5 20.88 6 27.06
 7 13.87 8 74.34 9 -5.31
 10 172.67