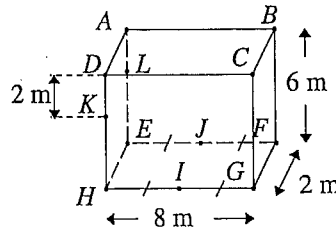


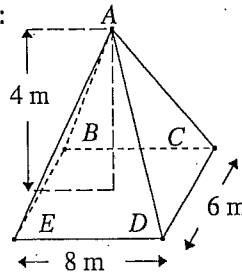
A Trigonometry: Practical applications in three dimensionals

Skill 8.9

- Find the angle between the planes:
 - $ABCD$ and $KLBC$
 - $ABCD$ and $IJBC$
 - $IJKL$ and $ADEH$
 - $IJKL$ and $EFHG$
 - $IJBC$ and $BCFG$



- Find the angle that these planes make with the base:
 - ACD
 - ABC



B Chance and data: Displaying continuous data

Skill 9.5

The following figures are the weight in grams of jelly beans eaten in a three minute jelly bean gobble competition. Tabulate the results using the intervals (250 to <275, 275 to <300, 300 to <325, 325 to <350, 350 to <375, 375 to <400) and display the results on a pie graph:

{260, 273, 252, 323, 378, 351, 292, 283, 254, 299, 315, 360, 392, 384, 331, 338, 384, 394}

C Chance and data: Working with continuous data

Skill 9.6

The following figures are the length of licorice that competitors eat (in cm) in a two minute licorice strap gobble competition. Tabulate the results using the intervals (100 to <120, 120 to <140, 140 to <150, 150 to <160, 160 to <180, 180 to <200, 200 to <220, 220 to <240). Set up a cumulative frequency table, draw the resulting cumulative frequency bar chart and determine the median value of licorice gobbled.

{115, 123, 148, 230, 189, 238, 173, 179, 110, 115, 193, 230, 236, 142, 149, 201, 215, 165, 238, 204, 228, 234}

D Calculators: Simple calculations

Skill 10.2

Calculate the following to two decimal places:

- | | |
|----------------------------------------------|--------------------------------------------|
| 1 $4.09^2 + 1.02 + 5(6.03 - 11.4)$ | 2 $3 \times 2.07 + 15.03 - 12.09$ |
| 3 $\frac{(2.07 + 5.1)^2}{3.9} - 17.3$ | 4 $\sqrt{19.3 + 8.01} + 6.3 + 12.9$ |
| 5 $\frac{2\sqrt{19.4}}{3} + 11.7$ | 6 $\sqrt{\frac{2(9.3 + 4)}{3}} - 12.3$ |
| 7 $\frac{15.2^2 + 4\sqrt{2 + 9.1}}{3.8}$ | 8 $\frac{14.02^2}{3.9} + \sqrt{2\pi} - 11$ |
| 9 $\frac{5\sqrt{8.3 + 2}}{7} + 11.02 - 6.03$ | 10 $15.02(3 \times 9.02)^2 + 3.094$ |

E Calculators: Repeating an operation on a range of numbers

Skill 10.3

Complete the following operations on this data set:

{15.8, -3.2, 19.4, -100.2, 19.7, 38.4, 42.09, 15.07, -11.6, -12.8, -140.3}

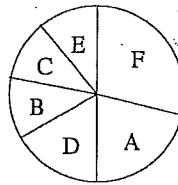
- | | |
|-----------------------|--------------------------|
| 1 multiply them by -2 | 2 divide them by 0.4 |
| 3 add 6.07 to them | 4 subtract 3.2 from them |

Worksheet 37

- A 1 (a) 14.04° (b) 56.31°
 (c) 45° (d) 45°
 (e) 33.69°
 2 (a) 45° (b) 53.13°

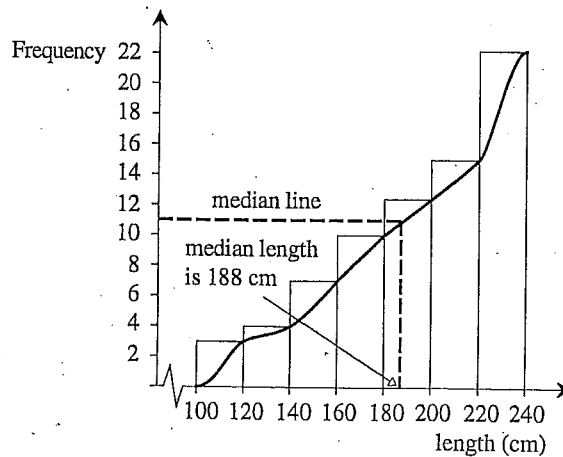
B

Jelly bean weight (g)	Tally	Freq.	Angle
A 250 to < 275		4	80°
B 275 to < 300		2	40°
C 300 to < 325		2	40°
D 325 to < 350		3	60°
E 350 to < 375		2	40°
F 375 to < 400		5	100°



C

Licorice length (cm)	Freq.	Cummulative freq.
100 to < 120	3	3
120 to < 140	1	4
140 to < 160	3	7
160 to < 180	3	10
180 to < 200	2	12
200 to < 220	3	15
220 to < 240	7	22



- D 1 0.90 2 9.15 3 -4.15
 4 24.43 5 14.64 6 -9.32
 7 64.31 8 41.91 9 7.28
 10 11 001.39
 E 1 -31.6, 6.4, -38.8, 200.4, -39.4, -76.8, -84.18,
 -30.14, 23.2, 25.6, -280.6
 2 39.5, -8, 48.5, -250.5, 49.25, 96, 105.225, 37.675,
 -29, -32, -350.75
 3 21.87, 2.87, 25.47, -94.13, 25.77, 44.47, 48.16,
 21.14, -5.53, -6.73, -134.23
 4 12.6, -6.4, 16.2, -103.4, 16.5, 35.2, 38.89, 1187,
 -14.8, -16, 143.5