

Revision & Practice Worksheet 18

A Number applications: Finding fractions of quantities

Find:

- | | | |
|---------------------------|---------------------------|---------------------------|
| 1 $\frac{2}{3}$ of \$18 | 2 $\frac{5}{8}$ of \$6 | 3 $\frac{3}{4}$ of \$9 |
| 4 $\frac{2}{11}$ of \$88 | 5 $\frac{3}{5}$ of \$3000 | 6 $\frac{1}{9}$ of \$600 |
| 7 $\frac{1}{4}$ of \$2.50 | 8 $\frac{2}{5}$ of \$6.90 | 9 $\frac{1}{6}$ of \$19 |
| 10 $\frac{5}{6}$ of \$9 | 11 $\frac{2}{11}$ of \$19 | 12 $\frac{3}{11}$ of \$17 |
| 13 $\frac{2}{9}$ of \$7 | 14 $\frac{5}{9}$ of \$3 | 15 $\frac{5}{7}$ of \$5 |

B Number applications: Expressing fractions of quantities as percentages

- The following children each drink some milk from their full 2-litre container. Find the percentage of milk which remains in each container:

(a) Sally drinks 600 mL	(b) Sammy drinks 350 mL
(c) Seth drinks 400 mL	(d) Steve drinks 1900 mL
(e) Sid drinks 950 mL	(f) Zack drinks 820 mL
- Water leaks out of a water tank at the rate of 5 L every hour. If the tank holds 80 L at 7 a.m. find the percentage of water remaining in the tank every hour from 7 a.m. to noon.
- Samuel Savehard deposits \$120 in the local building society in a fixed interest account for five years. The terms of this account are such that he must keep the money plus interest in the building society for five years. If the interest rate is 10% each year, find the balances of his account for the five years.
- William's test scores for his last six tests are: 75%, 38%, 88%, 98%, 100%, 69%.
Find:
 - His test score average for these test scores
 - What he needs to score on his last test to average 80%

C Cartesian plane: Finding coordinates from quadratic equations

Complete the table of values:

1 $y = 2x^2$

x	-2	-1	0	1	2
y					

2 $y = (x + 1)^2$

x	-3	-2	-1	0	1
y					

3 $y = (x - 2)^2$

x	0	1	2	3	4
y					

4 $y = -x^2$

x	-2	-1	0	1	2
y					

5 $y = 5 - x^2$

x	-2	-1	0	1	2
y					

D Cartesian plane: Plotting parabolas

Draw 5 sets of axes so that the x-axis goes from -3 to +4 and the y-axis goes from -5 to +10. Use the information from set C above to plot these parabolas:

- | | | |
|--------------|-------------------|-------------------|
| 1 $y = 2x^2$ | 2 $y = (x + 1)^2$ | 3 $y = (x - 2)^2$ |
| 4 $y = -x^2$ | 5 $y = 5 - x^2$ | |

Worksheet 18

- A 1 \$12 2 \$3.75 3 \$6.75 4 \$16
 5 \$1800 6 \$66.67 7 \$0.63 8 \$2.76
 9 \$3.17 10 \$7.50 11 \$3.45 12 \$4.64
 13 \$1.56 14 \$1.67 15 \$3.57

- B 1 (a) 70% (b) 82.5% (c) 80%
 (d) 5% (e) 52.5% (f) 59%
 2 7 a.m. 100% 8 a.m. 93.75% 9 a.m. 87.5%
 10 a.m. 81.25% 11 a.m. 75% noon 68.75%
 3 \$132, \$145.20, \$159.72, \$175.69, \$193.26
 4 (a) 78% (b) 92%

C 1 $y = 2x^2$

x	-2	-1	0	1	2
y	8	2	0	2	8

2 $y = (x + 1)^2$

x	-3	-2	-1	0	1
y	4	1	0	1	4

3 $y = (x - 2)^2$

x	0	1	2	3	4
y	4	1	0	1	4

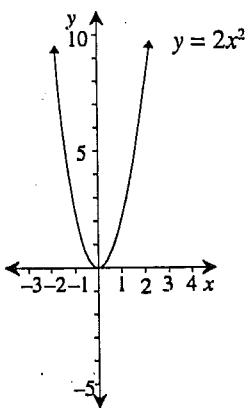
4 $y = -x^2$

x	-2	-1	0	1	2
y	-4	-1	0	-1	-4

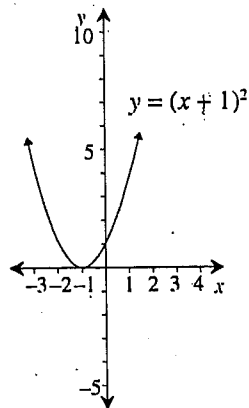
5 $y = 5 - x^2$

x	-2	-1	0	1	2
y	1	4	5	4	1

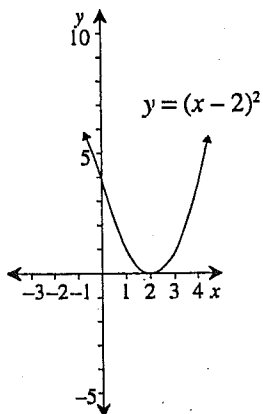
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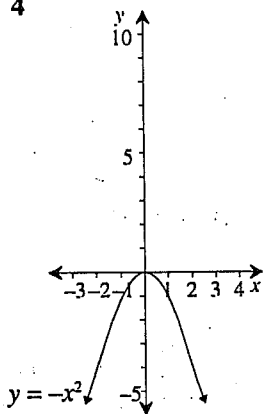
2



3



4



5

