

## Percentages – Answers

### Mental Test – Percentages

- |                     |           |                  |
|---------------------|-----------|------------------|
| 1) $\frac{37}{100}$ | 2) 40%    | 3) 2.4           |
| 4) 25%              | 5) £0.70  | 6) 80%           |
| 7) 19500            | 8) £1.26  | 9) $\frac{1}{6}$ |
| 10) 62.5%           | 11) 1400  | 12) £9.60        |
| 13) 20%             | 14) £3.84 | 15) 594          |

### Percentage Problems I

- |                             |                   |                   |                        |                   |                   |
|-----------------------------|-------------------|-------------------|------------------------|-------------------|-------------------|
| 1) (a) 0.28                 | (b) 0.07          | (c) 0.175         | (d) 1.2                | (e) 0.372         | (f) 0.0625        |
| 2) (a) $\frac{7}{20}$       | (b) $\frac{1}{8}$ | (c) $\frac{1}{3}$ | (d) $\frac{2}{25}$     | (e) $\frac{5}{8}$ | (f) $\frac{7}{5}$ |
| 3) (a) 42.5%                | (b) 37.5%         | (c) 68.75%        | (d) 83 $\frac{1}{3}$ % | (e) 35.1%         | (f) 225%          |
| 4) 5733                     |                   |                   |                        |                   |                   |
| 5) 6 $\frac{2}{3}$ %        |                   |                   |                        |                   |                   |
| 6) £146                     |                   |                   |                        |                   |                   |
| 7) (a) 37.5 hours           | (b) 168 hours     | (c) 22.3%         |                        |                   |                   |
| 8) Materials £103.74;       | Labour £175.56;   | Overheads £33.06; | Profit £67.64          |                   |                   |
| 9) 75                       |                   |                   |                        |                   |                   |
| 10) 6.9%                    |                   |                   |                        |                   |                   |
| 11) Bus 35.4%;              | Car 21.8%         | Bike 17.0%        | Walk 25.8%             |                   |                   |
| 12) £4410                   |                   |                   |                        |                   |                   |
| 13) (a) 41.83               | (b) £280.83       |                   |                        |                   |                   |
| 14) (a) 3034                | (b) 13366         |                   |                        |                   |                   |
| 15) (a) 30.9cm <sup>2</sup> | (b) 21.5%         |                   |                        |                   |                   |

### Percentage Problems II – Increase and Decrease

- |                  |                                   |              |           |           |       |
|------------------|-----------------------------------|--------------|-----------|-----------|-------|
| 1) (a) 1.15      | (b) 1.08                          | (c) 1.17     | (d) 1.5   | (e) 1.132 | (f) 2 |
| (g) 2.25         | (h) 1.3                           |              |           |           |       |
| 2) (a) 0.85      | (b) 0.92                          | (c) 0.83     | (d) 0.5   | (e) 0.868 | (f) 0 |
| (g) Not possible | (h) 0.7                           |              |           |           |       |
| 3) (a) 12.5%     | (b) 13.0%                         | (c) 7.5%     | (d) 160%  |           |       |
| 4) (a) 10%       | (b) 11.5%                         | (c) 7.5%     | (d) 61.5% |           |       |
| 5) 3087          |                                   |              |           |           |       |
| 6) £7990         |                                   |              |           |           |       |
| 7) 44.8%         |                                   |              |           |           |       |
| 8) (a) £22896    | (b) 4.17%                         |              |           |           |       |
| 9) (a) £269.08   | (b) £2173.75                      |              |           |           |       |
| 10) 46.4%        |                                   |              |           |           |       |
| 11) (a) £287.05  | (b) £287.05 – makes no difference |              |           |           |       |
| 12) 0.732%       |                                   |              |           |           |       |
| 13) (a) £9.28    | (b) 20.2%                         |              |           |           |       |
| 14) (a) 21620    | (b) 11.9%                         |              |           |           |       |
| 15) (a) £260.16  | (b) (i) £282.01                   | (ii) £305.70 |           |           |       |

### Percentage Problems III

- 1) (a) £2120      (b) £2382.03      (c) £6414.27
- 2) (a) 66.1 million      (b) 209.7 million      (c) 2001
- 3) (a) £4797.56      (b) 6 years
- 4) (a) 2123.36      (b) 2393.36      (c) £6620.41
- 5) (a) £3055      (b) £1750
- 6) (a) £360      (b) £440
- 7) £157.45
- 8) (a) 14.4%      (b) 139
- 9) (a) £380.80      (b) £292.10
- 10) 10.7 million
- 11) (a) 61500      (b) 7790      (c) (i) 15.4%      (ii) 14.4%
- 12) £2580.48
- 13) £96000
- 14) £84.26

### Percentage Increase and Decrease

- 1) £48
- 2) £867
- 3) 2700
- 4) £28.6

### Percentage Increases and Decreases

- 1) (a) £33.93      (b) £44
- 2) (a) £799      (b) £800
- 3) 60cm
- 4) (a) £900      (b) £1011.24
- 5) (a) £280      (b) £49
- 6) (a) £38.40      (b) £32
- 7) (a) 204      (b) 300
- 8) 900
- 9) 480p
- 10) (a) £2023      (b) £2800