Lesson 2

Percentages: Year 9

Non Calculator

2.1 Percentage Increase

To this table of percentages add the common fraction equivalents.

| 50% | 33 1 / ₃ % | 25% | 20% | 10% | 5% | 4% | 2% | 1% |
|-----|----------------------------------|-----|-----|-----|----|----|----|----|

2.2 Examples

Example 1

Increase £50 by 20%

Example 2

Increase £25 by 40%

Example 3

Increase £40 by 30%

Example 4

Increase £75 by 12%

2.3 Exercise

Question 1

Question 2

Increase £90 by 10%

Increase £80 by 25%

Increase 50 kg by 60%

Question 4

Increase 20 cm by 75%

Question 5

Increase £50 by 30%

Question 6

Increase £6 by 50%

Question 7

Increase £40 by 5%

Question 8

Increase £40 by 15%

Question 9

Increase \$30 by 70%

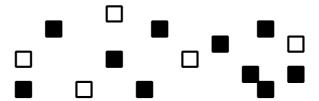
Question 10

Increase \$75 by $66\frac{2}{3}\%$

Make this line 50% longer.

Question 12Make this rectangle 20% wider and 40% higher.





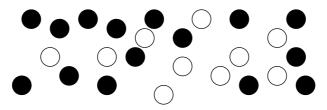
- (i) What percentage of the squares are shaded black?
- (ii) What percentage of the squares are shaded white?

Question 14



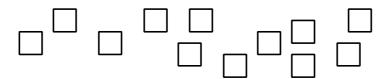
- (i) What percentage of the stars are shaded black?
- (ii) What percentage of the stars are shaded white?

Question 15



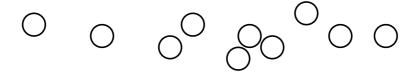
- (i) What percentage of the circles are shaded black?
- (ii) What percentage of the circles are shaded white?

Increase the number of squares by 25%



Question 17

Increase the number of circles by 40%



Question 18

(i) Complete this table of 'eighths' percentages.

| 1/8 | <u>2</u> 8 | 3/8 | 4/8 | <u>5</u> 8 | <u>6</u> 8 | 7/8 | 8 8 | 9 8 |
|-----|---------------|-----|-----|---------------|---------------|-----|-----|-----|
| | | | 50% | | | | | |

- (**ii**) Increase £16 by 37½%
- (iii) Increase £64 by $62\frac{1}{2}\%$