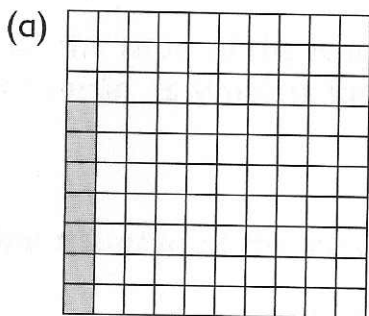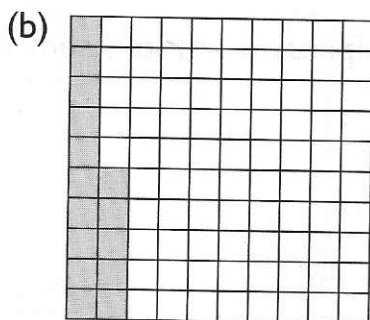# EXERCISE 15
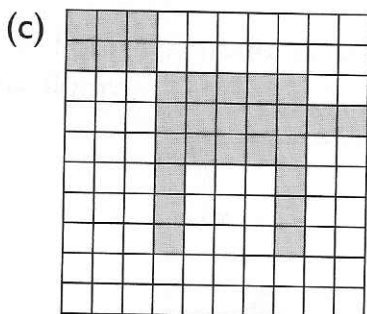
1. In each of the following, the whole is divided into 100 equal parts.
    What percentage of the whole is shaded?

(a)

_____ %

(b)
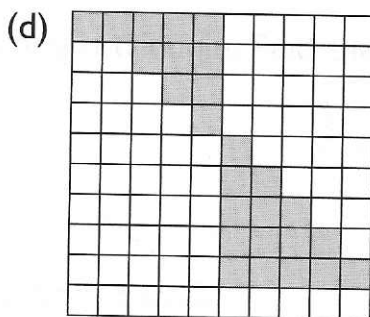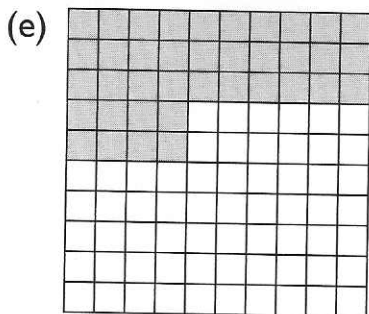

_____ %
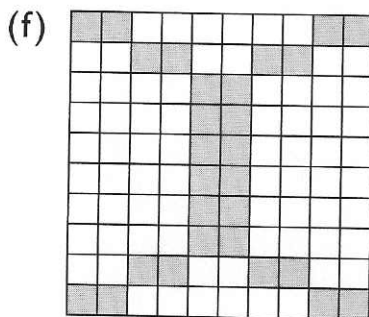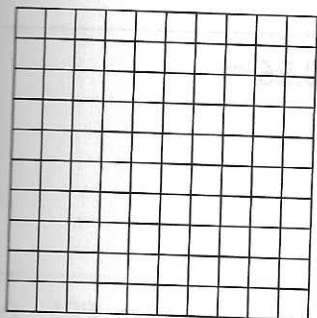
(c)

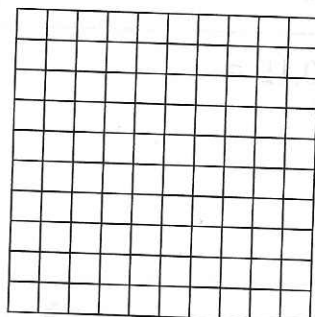_____ %

(d)

_____ %

(e)

_____ %

(f)

_____ %

2 In each of the following, the whole is divided into 100 equal parts.

(a) Shade 80% of the whole.   (b) Shade 63% of the whole.

3 Express each fraction as a percentage.
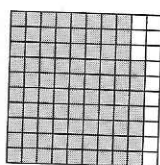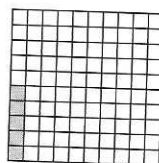
$\dfrac{87}{100} =$	$\dfrac{5}{100} =$
$\dfrac{16}{100} =$	$\dfrac{71}{100} =$
$\dfrac{68}{100} =$	$\dfrac{50}{100} =$
$\dfrac{99}{100} =$	$\dfrac{100}{100} =$

4 Fill in the missing numerator or denominator.

$7\% = \dfrac{\quad}{100}$	$1\% = \dfrac{\quad}{100}$
$43\% = \dfrac{\quad}{100}$	$99\% = \dfrac{\quad}{100}$
$14\% = \dfrac{14}{\quad}$	$68\% = \dfrac{68}{\quad}$
$5\% = \dfrac{5}{\quad}$	$84\% = \dfrac{84}{\quad}$

27

EXERCISE 16

1. Express each decimal as a percentage.

(a) 0.15 =	(b) 0.86 =
(c) 0.4 =	(d) 0.9 =
(e) 0.47 =	(f) 0.12 =
(g) 0.04 =	(h) 0.5 =
(i) 0.75 =	(j) 0.06 =

2. Express each percentage as a decimal.

(a) 24% =

(b) 37% =

(c) 78% =

(d) 6% =

(e) 62% =

(f) 53% =

(g) 10% =

(h) 7% =

(i) 80% =

(j) 90% =

EXERCISE 17

1. Express each percentage as a fraction in its simplest form.

(a) $22\% = \dfrac{22}{100}$ $= $	(b) $45\% = $
(c) $96\% = $	(d) $52\% = $
(e) $6\% = $	(f) $40\% = $
(g) $90\% = $	(h) $8\% = $
(i) $75\% = $	(j) $50\% = $

EXERCISE 18

1. Express each fraction as a percentage.

(a) $\dfrac{1}{2}$ =	(b) $\dfrac{9}{50}$ =
(c) $\dfrac{17}{20}$ =	(d) $\dfrac{12}{25}$ =
(e) $\dfrac{3}{5}$ =	(f) $\dfrac{9}{15}$ =
(g) $\dfrac{8}{50}$ =	(h) $\dfrac{3}{12}$ =
(i) $\dfrac{18}{75}$ =	(j) $\dfrac{12}{40}$ =

2. Write each of the following as a percentage.

(a) 8 out of 40

$$\frac{8}{40} = \frac{2}{10}$$

$$=$$

(b) 40 out of 80

(c) 15 out of 50

(d) 7 out of 20

(e) 24 out of 40

EXERCISE 19

Write each of the following as a percentage.

(a) 186 out of 200 $$\frac{186}{200} = \frac{93}{100}$$ $$=$$
(b) 39 out of 300
(c) 96 out of 400
(d) 235 out of 500
(e) 122 out of 200

2. Sara mailed 20 Christmas cards. 9 of them were mailed to Canada. What percentage of the cards were mailed to Canada?

3. There are 80 members in a school band. 24 of them are 6th grade students. What percentage of the members are 6th grade students?

4. There are 200 units in an apartment complex. 64 of them are three-bedroom apartments. What percentage of the apartments are three-bedroom apartments?