Skill 22.4 Substituting into expressions involving fractions.

Q. If $d = 8$,
find the value of:
$\frac{1}{2}$ of d

A. $\frac{1}{2}$ of d

$= \frac{1}{2} \times 8$

$= \frac{8}{2}$

$= 4$

Substitute d with 8.
Replace "of" with "×".
Multiply 1 by 8.
To simplify the fraction divide the
numerator by the denominator:
$8 \div 2 = 4$

Q. If $a = 6$,
find the value of:
$\frac{18}{a}$

A. $\frac{18}{a}$

$= \frac{18}{6} \begin{smallmatrix} \div 6 \\ \div 6 \end{smallmatrix}$

$= \frac{3}{1}$

$= 3$

Substitute a with 6.
To simplify the fraction divide the
numerator and the denominator by
their HCF, which is 6.

a) If $b = 6$,
find the value of:
$\frac{1}{3}$ of b

$= \frac{1}{3} \times 6$

$= \frac{6}{3}$

$= 2$

b) If $c = 12$,
find the value of:
$\frac{1}{4}$ of c

$=$

$=$

$=$

c) If $p = 10$,
find the value of:
$\frac{1}{2}$ of p

$=$

$=$

$=$

d) If $r = 24$,
find the value of:
$\frac{1}{6}$ of r

$=$

$=$

$=$

e) If $h = 15$,
find the value of:
$\frac{2}{3}$ of h

$=$

$=$

$=$

f) If $m = 12$,
find the value of:
$\frac{3}{4}$ of m

$=$

$=$

$=$

g) If $g = 15$,
find the value of:
$\frac{g}{5}$

$= \frac{15}{5}$

$= 3$

h) If $x = 9$,
find the value of:
$\frac{x}{3}$

$=$

$=$

i) If $k = 8$,
find the value of:
$\frac{24}{k}$

$=$

$=$