Multiplying, Dividing and Mixed Operations

1 Dr Dobmaths claims 6 x a is the same as a x 6 if a = 4 find the values of 6 x a and a x 6. Is he correct?

2 Write true or false

a) 4 x a can be written as 4a

b) n x 7 can be written as 7n

c) 5y can be written as 5 + y

d) a x b can be written as ab

3 Simplify $\frac{2a}{3a}$

4 Write these algebraic expression without any multiplication signs

a) 3 x t

b) p x 5

c) 1 x k

d) 3f x 5g

e) 4a x 2b x c

f) 3 x a x 4 x b

5 Write these the short way

a) b x b

b) y x y

c) t x t x t

d) 3t x 5t

e) 4a x 3a

f) 7y x 3y

6 Write without division signs

a) p ÷ q

b) a ÷ z

c) 3 ÷ b

d) (3a + 1) ÷ 5

e) (6a + 2) ÷ (a + 4)

f) 4a + b ÷ 5

7 Simplify the following expressions

a) $\frac{3a}{7a}$

b) $\frac{7ab}{5a}$

c) $\frac{2y}{4}$

d) $\frac{6a}{9a}$

e) $\frac{10p}{15p}$

f) $\frac{9b}{3ab}$

Answers

1 6 x 4 = 24 and 4 x 6 = 24 He is correct.

2 a) true b) true

c) false d) true

3 $\frac{2}{3}$

4 a) 3t b) 5p c) k

c) 15fg d) 8abc e) 12ab

5 a) b^2 b) y^2 c) t^3

d) $15t^2$ e) $12a^2$ f) $21y^2$

6 a) $\frac{p}{q}$ b) $\frac{a}{z}$ c) $\frac{3}{b}$

d) $\frac{3a+1}{5}$ e) $\frac{6a+2}{a+4}$ f) $4a+\frac{b}{5}$

7 a) $\frac{3}{7}$ b) $\frac{7b}{5}$ c) $\frac{y}{2}$

d) $\frac{2}{3}$ e) $\frac{2}{3}$ f) $\frac{3}{a}$