Recurring Decimals

Decide whether each of these decimals is recurring or terminating:

(a) $0.\dot{5}$ (b) 0.555

(c) $0.\dot{5}0\dot{5}$ (d) 0.055

(e) 5.0505 (f) $0.050505..$

Write down the first ten digits of each of these recurring decimals:

(a) $0.\dot{7}$ (b) $13.\dot{3}$

(c) $0.\dot{7}\dot{3}$ (d) $3.\dot{3}\dot{7}$

(e) $0.\dot{3}0\dot{7}$ (f) $7.\dot{0}3\dot{7}$

(g) $7.\dot{3}3\dot{7}$ (h) $0.\dot{3}10\dot{7}$

Write down the first ten digits of each of these recurring decimals:

(a) $0.0\dot{4}$ (b) $4.0\dot{4}\dot{5}$

(c) $5.4\dot{5}$ (d) $0.00\dot{5}\dot{4}$

(e) $0.0\dot{4}0\dot{5}$ (f) $45.4\dot{5}0\dot{4}$

(a) Given that $x = 0.\dot{6}\dot{2}$, write down the first ten digits of:

(i) x (ii) $100x$

(b) Given that $x = 0.\dot{2}4\dot{6}$, write down the first ten digits of:

(i) x (ii) $1000x$

In both cases, what do you notice?

(a) Given that $x = 0.1\dot{5}$, write down the first ten digits of:

(i) x (ii) $10x$ (iii) $100x$

(b) Given that $x = 0.0\dot{5}\dot{1}$, write down the first ten digits of:

(i) x (ii) $10x$ (iii) $1000x$

In both cases, what do you notice?

Recurring Decimals

Decide whether each of these decimals is recurring or terminating:

(a) $0.\dot{5}$ (b) 0.555

(c) $0.\dot{5}0\dot{5}$ (d) 0.055

(e) 5.0505 (f) $0.050505..$

Write down the first ten digits of each of these recurring decimals:

(a) $0.\dot{7}$ (b) $13.\dot{3}$

(c) $0.\dot{7}\dot{3}$ (d) $3.\dot{3}\dot{7}$

(e) $0.\dot{3}0\dot{7}$ (f) $7.\dot{0}3\dot{7}$

(g) $7.\dot{3}3\dot{7}$ (h) $0.\dot{3}10\dot{7}$

Write down the first ten digits of each of these recurring decimals:

(a) $0.0\dot{4}$ (b) $4.0\dot{4}\dot{5}$

(c) $5.4\dot{5}$ (d) $0.00\dot{5}\dot{4}$

(e) $0.0\dot{4}0\dot{5}$ (f) $45.4\dot{5}0\dot{4}$

(a) Given that $x = 0.\dot{6}\dot{2}$, write down the first ten digits of:

(i) x (ii) $100x$

(b) Given that $x = 0.\dot{2}4\dot{6}$, write down the first ten digits of:

(i) x (ii) $1000x$

In both cases, what do you notice?

(a) Given that $x = 0.1\dot{5}$, write down the first ten digits of:

(i) x (ii) $10x$ (iii) $100x$

(b) Given that $x = 0.0\dot{5}\dot{1}$, write down the first ten digits of:

(i) x (ii) $10x$ (iii) $1000x$

In both cases, what do you notice?