

Chapter 1

Real Numbers

Assessment based on Exercise 1.4 Question 1

Question 1:

Without actually performing the long division, state whether the following rational numbers will have a terminating decimal expansion or a non-terminating repeating decimal expansion.

(i) $\frac{23}{8}$

(ii) $\frac{17}{25}$

(iii) $\frac{33}{50}$

Solution:



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Question 2:

Without actually performing the long division, state whether the following rational numbers will have a terminating decimal expansion or a non-terminating repeating decimal expansion.

(i) $\frac{64}{637}$

(ii) $\frac{35}{1600}$

(iii) $\frac{129}{2^2 5^7 7^5}$

Solution:



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Question 3 :

Without actually performing the long division, state whether the following rational numbers will have a terminating decimal expansion or a non-terminating repeating decimal expansion.

(i) $\frac{13}{3125}$

(ii) $\frac{29}{343}$

(iii) $\frac{93}{2^3 \times 5^2}$

Solution:



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Question 4 :

Without actually performing the long division, state whether the following rational numbers will have a terminating decimal expansion or a non-terminating repeating decimal expansion.

(i) $\frac{41}{2^2 \times 5 \times 7}$

(ii) $\frac{17}{320}$

(iii) $\frac{27}{1200}$

Solution:



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Question 5 :

Without actually performing the long division, state whether the following rational numbers will have a terminating decimal expansion or a non-terminating repeating decimal expansion.

(i) $\frac{57}{2 \times 5^2}$

(ii) $\frac{3647}{2^2 \times 5^4}$

(iii) $\frac{33453}{2 \times 5^4}$

Solution:



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Assessment based on Exercise 1.1 Question 1

Answers

Answer: 1

- (i) Terminating (ii) Terminating (iii) Terminating

Answer: 2

- (i) Non-terminating repeating
(ii) Terminating
(iii) Non-terminating repeating

Answer: 3

- (i) Terminating
(ii) Non-terminating repeating
(iii) Terminating

Answer: 4

- (i) Non-terminating repeating
(ii) Terminating
(iii) Non-terminating repeating

Answer: 5

- (i) Terminating
(ii) Terminating
(iii) Terminating