

Exercise 1.4 (Highest Common Factor, HCF)

Q1. Find the HCF of

(a) 60, 120 and 180.

(b) $2^3 \times 3^2 \times 5$ and $2^2 \times 3^4 \times 5^3 \times 7$

(c) $2^4 \times 3^3 \times 5$ and $2^3 \times 3^6 \times 5^2$

Q2.

Ali wants to cover a floor measuring 90 cm by 120cm with a square tiles of same size.

Given that he uses only the whole tiles. find

(a) largest possible length of each tile;

(b) the numbers of tiles that are needed to cover the floor.

Q3.

Paul has three pieces of rope with lengths of 140cm, 168cm and 210cm.

He wishes to cut the three pieces of rope into smaller pieces of equal length with no remainder.

(a) What is the greatest possible length of each of the smaller pieces of rope?

(b) How many of the smaller pieces of rope of equal length can he get all together?

Answers: Exercise 1.4

Q1a) 60, Q1b) 180, Q1c) 1080 Q2a) 30cm, Q2b) 12 Q3a) 14 cm, Q3b) 37



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