# Year 7 Class 6 questions

## Q1

Choose ALL the multiples of 2.
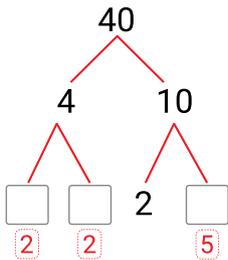
88    57    112    62    95    44

## Q2

Select ALL the numbers that are composite.

15    13    11    12         15, 12

## Q3

Complete the factor tree to write 40 as a product of its prime factors.

$$40$$

```
        40
       /  \
      4    10
     / \   / \
   [ ] [ ] 2 [ ]
    2   2     5
```

40 = [ ] × [ ] × [ ] × [ ]

40 = 2×2×2×5

## Q4

$\sqrt{100}$ = [ ]    10

## Q5

Complete the factor tree to find $\sqrt[3]{729}$ .

```
          729
         /   \
        9     81
       / \   /  \
     [ ][ ] 9   [ ]
            / \  / \
          [ ][ ]3 [ ]
```

```
          729
         /   \
        9     81
       / \   /  \
      3   3 9    9
                / \  / \
               3  3 3  3
```
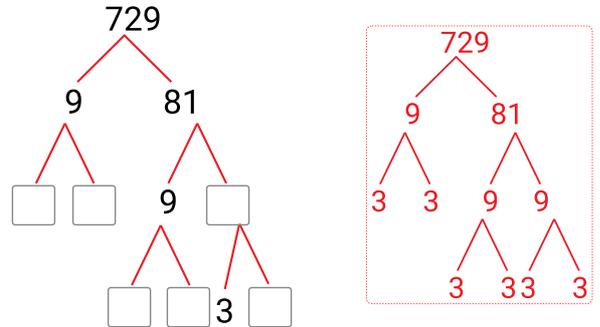
$\sqrt[3]{729}$ = [ ]    9

## Q6

What is the 5th multiple of 9?

[ ]    45

## Q7

Find the sum of the first two multiples of 5.

[ ]    15

## Q8

Find the sum of the first two multiples of 7.

[ ]    21

## Q9

Select ALL the numbers that are prime.

31    35    25    29    33         31, 29

## Q10

Select ALL the numbers that are composite.

46    61    41    45    49    [46, 45, 49]

## Q11

What are the first four prime numbers?

5    6    2    7    1

9    3    15    4    8

[2, 3, 5, 7]

## Q12

Draw a factor tree and use it to write 35 as a product of its prime factors.

35 = ⬭   [35 = 5 × 7]

$5 \times 7^2$        $5^7$

$5^2 \times 7$        $5 \times 7$

## Q13

Draw a factor tree and use it to write 36 as a product of its prime factors.

36 = ⬭   [36 = 2² × 3²]

$2^3 \times 3^3$        $2^2 \times 3$

$2 \times 3^2$        $2^2 \times 3^2$

## Q14

Complete the factor tree to find $\sqrt{196}$.

196
4    ☐
2   ☐   7   ☐

[196 → 4, 49 → 2, 2, 7, 7]
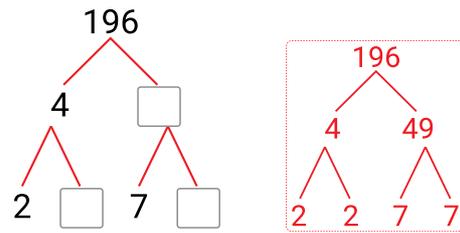
$\sqrt{196}$ = ☐    [14]

## Q15

Complete the factor tree to find $\sqrt{900}$.

900
2    ☐
2    ☐
3    ☐
3    ☐
☐    5

[900 → 2, 450 → 2, 225 → 3, 75 → 3, 25 → 5, 5]
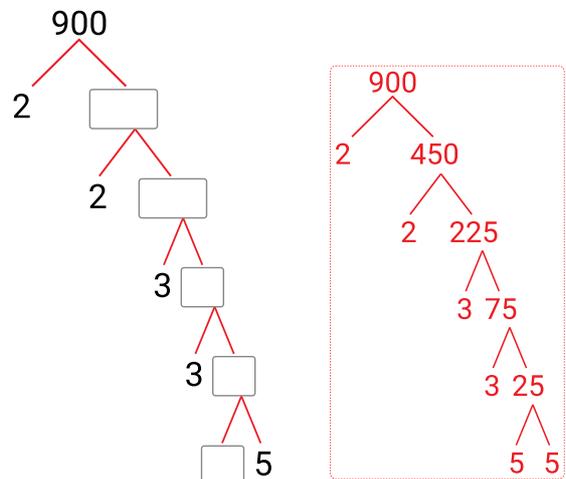
$\sqrt{900}$ = ☐    [30]

## Q16

Complete the factor tree to find $\sqrt[3]{9261}$.

9261
3    3087
3    ☐
343    ☐
7    ☐
☐    7

[9261 → 3, 3087 → 3, 1029 → 343, 3 → 7, 49 → 7, 7]
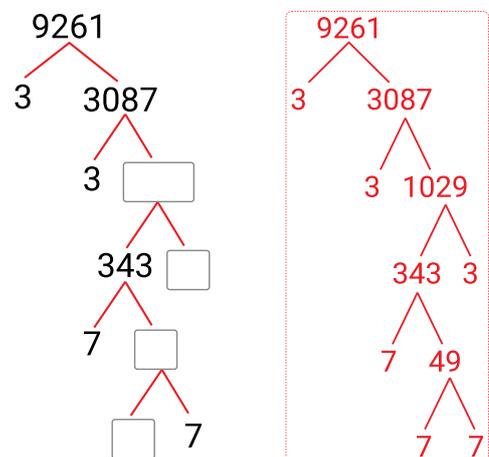
$\sqrt[3]{9261}$ = ☐    [21]

## Q17

Use a factor tree to help find the answer.

$\sqrt[3]{2744}$ = ☐   14

## Q18

Find the sum of the first three multiples of 6.

☐   36

## Q19

List the first 5 multiples of 22.

☐ ☐ ☐ ☐ ☐

22, 44, 66, 88, 110

## Q20

List the first 5 multiples of 31.

☐ ☐ ☐ ☐ ☐

31, 62, 93, 124, 155

## Q21

List ALL the prime numbers between 70 and 80.

78    71    75    78    77

72    74    73    76    79

71, 73, 79

## Q22

Draw a factor tree and use it to write 48 as a product of its prime factors. Order the factors from smallest to largest (for example 2² × 3 × 5).

48 = ☐^☐ × ☐   2⁴ × 3

## Q23

Draw a factor tree and use it to write 150 as a product of its prime factors. Order the factors from smallest to largest (for example 2² × 3 × 5).

150 = ☐ × ☐ × ☐^☐   2 × 3 × 5²

## Q24

Draw a factor tree and use it to write 308 as a product of its prime factors. Order the factors from smallest to largest (for example 2² × 3 × 5).

308 = ☐^☐ × ☐ × ☐   2² × 7 × 11

## Q25

Use a factor tree to help find the answer.

$\sqrt{324}$ = ☐   18

## Q26

Use a factor tree to help find the answer.

$\sqrt{441}$ = ☐   21

## Q27

Use a factor tree to help find the answer.

$\sqrt{1225}$ = ☐   35

## Q28

Use a factor tree to help find the answer.

$\sqrt[3]{4096}$ = ☐   16

**Q29**

Use a factor tree to help find the answer.

$\sqrt[3]{5832} =$ ☐ 18

**Q30**

Use a factor tree to help find the answer.

$\sqrt[3]{13\,824} =$ ☐ 24