One point questions

e.g. $4 \times \square = 24$. As $4 \times 6 = 24$, fill in ..... $4 \times \boxed{6} = 24$

1. $3 \times \square = 24$ **2.** $6 \times \square = 24$ **3.** $\square \times 4 = 36$

4. $\square \times 8 = 48$ **5.** $\square \div 2 = 9$ **6.** $\square \div 5 = 6$

7. $32 \div \square = 4$ **8.** $35 \div \square = 7$

Two point questions

e.g. $4 \times 0.\underline{6} = 2.\underline{4}$ as there is **one** decimal place (underlined)

Fill in missing boxes:

1. $3 \times 0.4 = \square$ **2.** $6 \times 0.3 = \square$ **3.** $0.7 \times 4 = \square$

4. $0.2 \times 8 = \square$ **5.** $0.6 \div 2 = \square$ **6.** $1.5 \div 5 = \square$

7. $3.2 \div \square = 0.8$ **8.** $3.5 \div \square = 0.5$

Two point questions

e.g. Find the factors of 20:

1×20; 2×10; 4×5.

Factors of 20 = **1, 2, 4, 5, 10, 20**

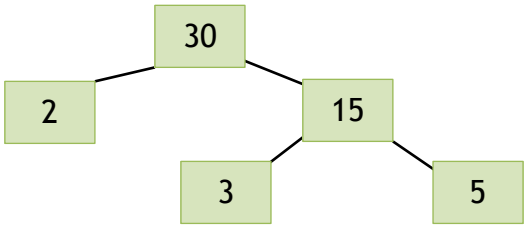
1. Factors of 12 **2.** Factors of 28 **3.** Factors of 18

4. Factors of 36 **5. Five** multiples of 9 **6. Five** multiples of 12

7. Four multiples of 18

Three point questions

e.g. Prime factors of 30



Prime factors of 30 = **2 × 3 × 5**

Find as a product of its primes:

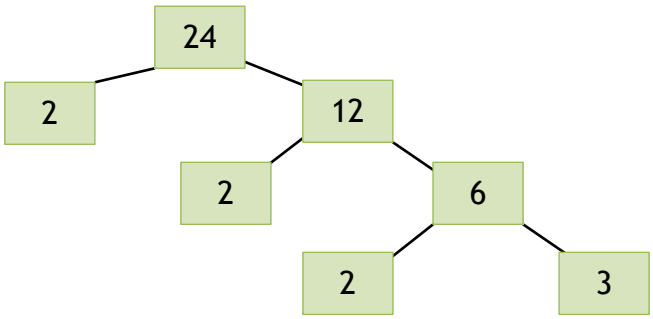
1. 20

2. 28

3. 42

Five point questions

e.g. Find the Highest Common Factor (HCF) of 24 and 36.



Prime Factors of 24 = 2×2×2×3
Similarly ..... 36 = 2×2×3×3

Now we cross off the common factors…

24 = ~~2~~ × ~~2~~ × 2 × ~~3~~
36 = ~~2~~ × ~~2~~ × 3 × ~~3~~

HCF = 2 × 2 × 3 = **12**

Find the HCF of the following:

1. 24 and 30

2. 36 and 30

3. 36 and 60

4. 27 and 90

Five point questions

e.g. Find the Lowest Common Multiple (LCM) of 24 and 36.

A: 24, 48, 72, 96, 120, …
36, 72, ….

$\therefore$ LCM = **72**

B: $24 = \cancel{2} \times \cancel{2} \times 2 \times \cancel{3}$
$36 = \cancel{2} \times \cancel{2} \times \cancel{3} \times 3$

LCM = $2 \times 2 \times 3 \times 2 \times 3 = 72$

HCF as before

Find the LCM of the following pairs of numbers:

1. 18 and 24

2. 36 and 45

3. 60 and 72

4. 16 and 36

Answers

	Additional remarks
One-point questions [8] **1.** 8 **2.**4 **3.** 9 **4.** 6 **5.** 18 **6.** 30 **7.** 8 **8.** 5	
Two-point questions [16 + 14] **1.** 1.2 **2.**1.8 **3.** 2.8 **4.** 1.6 **5.** 0.3 **6.** 0.3 **7.** 4 **8.**7 **1.** 1, 2, 3, 4, 6, 12 **2.** 1, 2, 4, 7, 14, 28 **3.** 1, 2, 3, 6, 9, 18 **4.** 1, 2, 3, 4, 6, 9, 12, 18, 36 **5.** 9, 18, 27, 36, 45… **6.** 12,24, 36, 48, 60… **7.** 18, 36, 54, 72…	Two-point questions - assign 1 mark for correct numerical result (without the decimal point e.g.12 instead of 1.2) Two-point questions - assign 1 mark for more than half the factors are given.
Three-point questions [9] **1.** 2 × 2 × 3 **2.** 2 × 2 × 7 **3.** 2 × 3 × 7	Three-point questions - assign 1 mark for any correct pair of factors with one of them being prime (e.g. 12 = 2 × 6)
Five-point questions [20 + 20] **1.** HCF = 2 × 3 = 6 **2.** HCF = 2 × 3 = 6 **3.** HCF = 2 × 2 × 3 = 12 **4.** HCF = 3 × 3 = 9. **1.** LCM = 72 **2.** LCM = 180 **3.**LCM = 360 **4.** LCM = 144	Five-point questions [HCF] - assign 2 marks for the first correct product of prime factors, a further 1 mark for the second correct product. Assign 2 marks for the final correct answer (this applies to the answer only given) 24 = 2 × 2 × 2 × 3; 24 = 2 × 3 × 5; 36 = 2 × 2 × 3 × 3; 60 = 2 × 2 × 3 × 5; 27 = 3 × 3 × 3; 90 = 2 × 3 × 3 × 5; Five-point questions [LCM] - assign 2 marks for the first correct list of multiples, a further 1 mark for the second correct list. Assign 2 marks for the final correct answer (this applies to the answer only given)
Total points = 87	