WONDERLEARNERZ PRIMARY ACADEMY â€" OFFICIAL ANSWER KEY & MARKING SCHEME

# Fractions of a Number: Worksheet 3 [ANSWER KEY]

Grade 5 | Mathematics | Ch 5: Fractions of a Number | Total Marks: 19 | Time: 45 Minutes

**Q1. Find 3/4 of 60.** [1 Mark]

**Correct Answer: 45**

*Explanation: Divide by 4 (60 / 4 = 15), then multiply by 3: 45.*

**Q2. Evaluate 2/5 of 150 km.** [1 Mark]

**Correct Answer: 60 km**

*Explanation: 150 / 5 = 30; 30 x 2 = 60 km.*

**Q3. What is 5/6 of 72?** [1 Mark]

**Correct Answer: 60**

*Explanation: 72 / 6 = 12; 12 x 5 = 60.*

**Q4. Calculate 3/8 of 64.** [1 Mark]

**Correct Answer: 24**

*Explanation: 64 / 8 = 8; 8 x 3 = 24.*

**Q5. At the Harbor Marine Terminal, an orchard harvests 120 baskets of apples. If 3/5** of the baskets are red apples and the rest are green, how many baskets of red apples were harvested? [1 Mark]

**Correct Answer: 72 baskets**

*Explanation: 120 / 5 = 24. 24 x 3 = 72 baskets of red apples.*

**Q6. A school sports club has 80 members. 5/8 of the members play soccer. How many** members play soccer? [1 Mark]

**Correct Answer: 50 members**

*Explanation: 80 / 8 = 10. 10 x 5 = 50 soccer players.*

**Q7. A charity fundraiser collected $360. If 1/4 was spent on venue setup and 1/3 on** food, how much total money was spent on these two items? [1 Mark]

**Correct Answer: $210**

*Explanation: Venue: 360 / 4 = $90. Food: 360 / 3 = $120. Total spent = 90 + 120 = $210.*

**Q8. Find the mystery quantity: 2/3 of [ ? ] = 18.** [1 Mark]

**Correct Answer: 27**

*Explanation: If 2 parts = 18, then 1 part = 9. Whole quantity = 9 x 3 = 27.*

**Q9. Fill in the missing fraction: [ ? ] of 40 = 25.** [1 Mark]

**Correct Answer: 5/8**

*Explanation: 25/40 simplified by dividing by 5 gives 5/8.*

**Q10. Ben calculates 2/3 of 18 as: '18 / 2 = 9, then 9 x 3 = 27.' What did Ben do wrong** and what is the correct answer? [1 Mark]

**Correct Answer: 12**

*Explanation: Ben divided by the numerator and multiplied by denominator. He should divide by 3 (18/3=6) and multiply by 2 (6x2=12).*

**Q11. Ella writes: '3/4 of 20 is equal to 3/4 + 20 = 20 3/4.' Correct Ella's conceptual** misunderstanding and provide the right answer. [1 Mark]

**Correct Answer: 15**

*Explanation: 'Of' indicates multiplication/grouping, not addition. 20 / 4 = 5; 5 x 3 = 15.*

**Q12. Explain why finding 1/4 of 48 gives the same result as dividing 48 by 4.** [2 Marks]

**Correct Answer: A fraction 1/n represents one equal share out of n equal parts. Dividing 48 into 4 equal shares distributes 12 into each part, which is mathematically identical to 1/4 of 48.**

*Explanation: Multiplying by 1/n is operationally equivalent to division by n.*

**Q13. Show why 3/5 of 50 is equal to (3 x 50) / 5 and explain whether order of operations matters.** **[2 Marks]**

**Correct Answer: 3/5 of 50 = (50 / 5) x 3 = 10 x 3 = 30. Also (3 x 50) / 5 = 150 / 5 = 30. Multiplication and division have equal priority, so order does not change the result.**

*Explanation: Multiplication and division are associative and commutative in rational scaling.*

**Q14. In a botanical garden, 2/5 of the 150 trees are flowering trees, and 1/3 of the flowering trees are cherry blossoms. How many cherry blossom trees are there?** **[2 Marks]**

**Correct Answer: 20 trees**

*Explanation: Flowering trees = 150 x 2/5 = 60. Cherry blossoms = 60 x 1/3 = 20 trees.*

**Q15. A runner has completed 3/7 of a marathon course and has 24 km remaining. What is the total length of the marathon course?** **[2 Marks]**

**Correct Answer: 42 km**

*Explanation: Remaining fraction = 1 - 3/7 = 4/7. If 4/7 = 24 km, then 1/7 = 6 km. Total course = 6 x 7 = 42 km.*