Whole numbers, factors and powers topic test

Name: _____ Date: _____

15 questions | 32 marks | 45 minutes

A progressive by-hand review of place value, calculations, factors, powers and estimates.

No calculator needed.

1. What is the value of the 6 in 3,642,015? [1 mark]

2. Write $4{,}000 + 70 + 9$ as one whole number. [1 mark]

3. Evaluate 6×10^4. [1 mark]

4. Evaluate $18 + 24 \div 6$. [2 marks]

5. Evaluate $(20-8)\times 3$. [2 marks]

6. List every positive factor pair of 45. [3 marks]

7. Is 49 prime? Give a reason. [2 marks]

8. Find the highest common factor of 18 and 42. [2 marks]

9. Find the lowest common multiple of 8 and 12. [2 marks]

10. Write 90 as a product of prime powers. [3 marks]

11. Evaluate $\sqrt{225}$. [1 mark]

12. A square has area 144 square centimetres. Find its side length and perimeter. [4 marks]

(a) Find the side length. [2 marks]

(b) Find the perimeter. [2 marks]

13. Round 4,970 to the nearest hundred. [1 mark]

14. Estimate 39×202 using convenient whole numbers. [2 marks]

15. A trip takes 96 students. Each bus seats 24 students and costs 185 dollars to hire. Entry costs 7 dollars per student. Find the number of buses and the total cost. [5 marks]

(a) How many buses are needed? [1 mark]

(b) Find the total cost of bus hire. [2 marks]

(c) Find the total cost of bus hire and entry. [2 marks]