Practice worksheet | Financial mathematics

Comparing linear growth/cost models

Name: _____ Date: _____

6 questions | 14 marks

1. A class has a 20-dollar booking fee plus 8 dollars per student. Write a rule for n students. [2 marks]

2. Use $C = 20 + 8n$ to find the cost for 7 students. [2 marks]

3. A costs $15 + 5n$ dollars and B costs $30 + 2n$ dollars. Find the equal-cost count. [3 marks]

4. For A: $15 + 5n$ and B: $30 + 2n$, which is cheaper for 3 items? [2 marks]

5. A costs $15 + 5n$ dollars and B costs $30 + 2n$ dollars. Which is cheaper for 10 items, and by how much? [2 marks]

6. A model gives $C = 25 + 4h$ dollars for $0 \le h \le 8$ hours. Explain why using it at h=20 needs care. [3 marks]