

Grade 8 Math
Rates

Multiple Choice

- _____ 1. Laura types 240 words in 3 min. What is her unit rate of typing?
- a. 80 wpm b. 210 wpm c. 240 wpm d. 720 wpm
- _____ 2. Victor's model car covers 250 m in 5 min. What is the average speed of his car?
- a. 125 m/min b. 50 m/min c. 250 m/min d. 1250 m/min
- _____ 3. A car travels 152 km in 4 h. How far will it travel in 1 h?
- a. 61 km b. 148 km c. 38 km d. 42 km
- _____ 4. At an average speed of 34 km/h, how far will a car travel in 8 h?
- a. 26 km b. 272 km c. 4.25 km d. 280 km
- _____ 5. At the market, 5 cans of soup cost \$4.75. What is the cost of 1 can of soup?
- a. 97¢ b. \$1.90 c. 96¢ d. 95¢
- _____ 6. A vehicle uses 60 L of gas for travelling a distance of 500 km.
Calculate the rate of gas consumption of the vehicle in L/100 km.
- a. 0.12 L/100 km b. 8.33 L/100 km c. 12 L/100 km d. 300 L/100 km

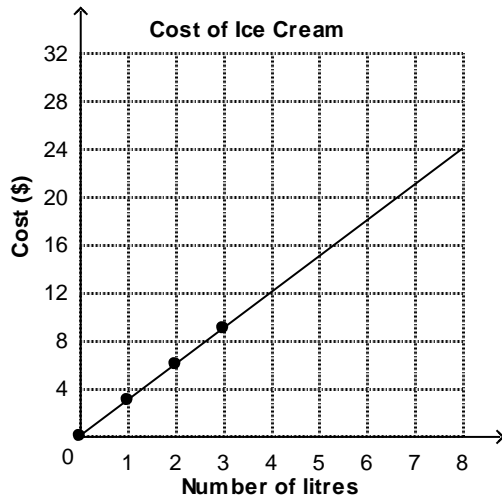
___ 7. Caitlin planned for a vacation and checked for exchange rates. She noted that \$1 CAD was worth 0.66 Euros. How many Euros would she get for \$30 CAD?

- a. 36.00 euros b. 19.80 euros c. 45.00 euros d. 2.20 euros

___ 8. Sean saves \$25 in 5 weeks. At this rate, how long will it take him to save \$55?

- a. 16 weeks b. 275 weeks c. 30 weeks d. 11 weeks

___ 9. In a store, ice cream is sold by the liter. Use the graph to find the cost of 2 L ice cream.



- a. \$6.00 b. \$3.00 c. \$9.00 d. \$15.00

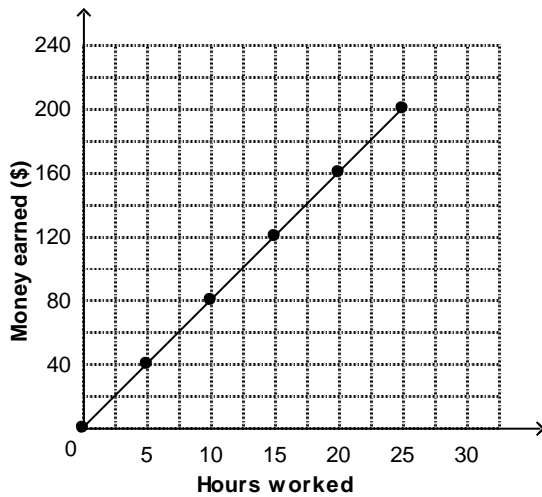
10. A plane travelled 2700 km in 9 h. How far did it travel in 1 h?

11. Elisa earned \$78.00 for 12 h of work. What was her hourly rate of pay?

12. Corrie drove 176 km in 4 h. Geri drove 215 km in 5 h.
Who drove faster? Explain.

13. A soccer player scored 26 goals in 82 games.
What is the player's scoring rate in goals per game?
Round your answer to the nearest tenth.

14. The graph shows how much Kim earns for the hours she worked.
a) How much does Kim earn for 1 h of work?
b) What is Kim's hourly rate of pay?
c) How much does Kim earn for working 30 h?



15. The cost of 6 m of ribbon is \$21.
- a) What is the cost per meter?
 - b) What would be the cost of 11 m of ribbon?
 - c) How much ribbon could you buy for \$28?

16. In 3 stores, the same detergent is on special. Which store offers the best buy? Explain.
- A: 6 bottles for \$12.48
 - B: 7 bottles for \$14.42
 - C: 5 bottles for \$10.35

Rates
Answer Section

MULTIPLE CHOICE

- | | | | | | | |
|----|---|---|-------------------|-------------|------|--|
| 1. | ANS:
LOC:
Understanding | A | PTS:
8.N5 TOP: | 1
Number | DIF: | Easy REF: 5.9 Exploring Rates
KEY: Conceptual |
| 2. | ANS:
LOC:
Understanding | B | PTS:
8.N5 TOP: | 1
Number | DIF: | Easy REF: 5.9 Exploring Rates
KEY: Conceptual |
| 3. | ANS:
LOC:
Understanding | C | PTS:
8.N5 TOP: | 1
Number | DIF: | Easy REF: 5.9 Exploring Rates
KEY: Conceptual |
| 4. | ANS:
LOC:
Understanding | B | PTS:
8.N5 TOP: | 1
Number | DIF: | Easy REF: 5.9 Exploring Rates
KEY: Conceptual |
| 5. | ANS:
LOC:
Understanding | D | PTS:
8.N5 TOP: | 1
Number | DIF: | Easy REF: 5.9 Exploring Rates
KEY: Conceptual |
| 6. | ANS:
Rates
LOC:
Understanding Problem-solving Skills | C | PTS:
8.N5 TOP: | 1
Number | DIF: | Moderate REF: 5.9 Exploring
KEY: Conceptual |
| 7. | ANS:
Rates
LOC:
Understanding Problem-solving Skills | B | PTS:
8.N5 TOP: | 1
Number | DIF: | Moderate REF: 5.9 Exploring
KEY: Conceptual |
| 8. | ANS:
Rates
LOC:
Understanding Problem-solving Skills | D | PTS:
8.N5 TOP: | 1
Number | DIF: | Moderate REF: 5.9 Exploring
KEY: Conceptual |

9. ANS: A PTS: 1 DIF: Moderate REF: 5.9 Exploring Rates
LOC: 8.N5 TOP: Number KEY: Conceptual
Understanding | Communication

SHORT ANSWER

10. ANS:
The plane travelled 300 km in 1 h.

PTS: 1 DIF: Easy REF: 5.9 Exploring Rates
LOC: 8.N5 TOP: Number KEY: Conceptual
Understanding

11. ANS:
Elisa was paid \$6.50/h.

PTS: 1 DIF: Easy REF: 5.9 Exploring Rates
LOC: 8.N5 TOP: Number KEY: Conceptual
Understanding

12. ANS:
Corrie drove faster.
Corrie drove at 44 km/h while Geri drove at 43 km/h.

PTS: 1 DIF: Moderate REF: 5.9 Exploring Rates
LOC: 8.N5 TOP: Number KEY: Conceptual
Understanding | Communication

13. ANS:
The player's scoring rate is 0.3 goals per game.

PTS: 1 DIF: Moderate REF: 5.9 Exploring Rates
LOC: 8.N5 TOP: Number KEY: Conceptual
Understanding

14. ANS:
a) Kim earns \$8 for 1 h of work.
b) Kim's hourly rate of pay is \$8/h.

c) Kim earns \$240 for working 30 h.

PTS: 1 DIF: Moderate REF: 5.9 Exploring Rates
LOC: 8.N5 TOP: Number KEY: Conceptual
Understanding | Communication

15. ANS:

- a) The cost of ribbon is \$3.5 per meter.
- b) The cost of 11 m of ribbon is \$38.5.
- c) I can buy 8 m of ribbon for \$28.

PTS: 1 DIF: Moderate REF: 5.9 Exploring Rates
LOC: 8.N5 TOP: Number KEY: Conceptual
Understanding | Problem-solving Skills

PROBLEM

16. ANS:

Store B offers the best buy.
A: Each bottle costs \$2.08.
B: Each bottle costs \$2.06.
C: Each bottle costs \$2.07.

PTS: 1 DIF: Moderate REF: 5.9 Exploring Rates
LOC: 8.N5 TOP: Number KEY: Communication