Rates and Proportions

ACMNA208 – Assessment

Name:

Score:

Teacher:

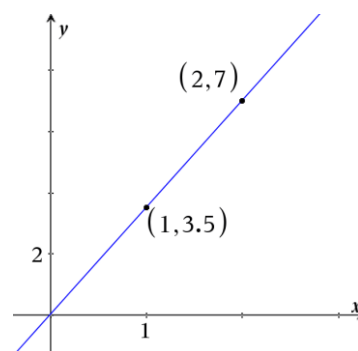Assessment   Navigator   Student   30 min

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Q.1. Concert tickets cost $50 per person. The total takings in dollars from 120 concert goers is found using:

a) 120×50 b) $120 \div 50$ c) $50 \div 120$ d) $50 + 120$ e) $120 - 50$

Q.2. The rule for the graph opposite is:

a) $y = \dfrac{7}{2}x$ b) $y = \dfrac{1}{2}x$

c) $y = 2x$ d) $y = \dfrac{1}{7}x$

e) $y = x + 2$

Q.3. The height difference of each level in a building is 3.5 m. A lift stops on the fourth floor. The approximate height (h) in metres of the floor of the lift is:

a) 3.5   b) 14   c) 17.5   d) 21.0   e) 35

Q.4. The cable on a stationary lift breaks. The lift increases its speed by 2m/s each second as it falls. If it falls for a period of 6 seconds, it's speed when it reaches the ground would be:

a) 10   b) -10   c) 3   d) 12   e) 0

Q.5. A car can travel 20 km on 2.5 litres of fuel. How far can it travel on 50 litres?

a) 520   b) 1000   c) 800   d) 400   e) 300

Q.6. A cleaning company has tendered to clean the six lifts in a building. If each lift has $24m^2$ of surface to be cleaned and it costs $5 a square metre for cleaning the total cost ($) is

a) 120   b) 150   c) 288   d) 300   e) 720

Q.7. If 10 kg of potatoes cost $10.90. The number of kilograms of potatoes you get for $18 is:

a) $\dfrac{18}{1.09}$ b) $\dfrac{18}{10.9}$ c) 18×10.9 d) 18×1.09 e) $10 + \dfrac{18}{10.9}$

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TEXAS INSTRUMENTS

Q.8. A family visits some friends who live 850 km away. On Day 1 they travel 400km in 5.5 hours. How long will it take them on Day 2 to reach their destination if they travel at the same rate?

a)   11.7 hours   b)   6 hours   c)   6.2 hours   d)   6.4 hours   e)   6.5 hours

Q.9. Use the table to determine the rule: $y = mx$

The value of m and p (table) respectively are

x:	0	1.5	3	12
y:	0	12	p	96

a) $m = 3$ $p = 84$

b) $m = 12$ $p = 42$

c) $m = 8$ $p = 24$

d) $m = 24$ $p = 8$

e) $m = 8$ $p = 42$

Q.10. The rule for the graph opposite is:

a) $y = -2x + 6.4$

b) $y = (x - 2) + 6.4$

c) $y = 3.2x$

d) $y = \dfrac{1}{2}x + 6.4$

e) $y = -3.2x$

TEXAS INSTRUMENTS