

Placement Test for Singapore Primary Mathematics 6A

This test covers only new material taught in Primary Mathematics 6A

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1. Simplify the following:	[2]
(a) $20a + 14 - 8a - 7$	(b) $b + 6b - 2b$
2. Find the value of the expression when n is 8.	[2]
(a) $150 - 2n^2$	(b) $\frac{5n-7}{3}$
3. The average price of 3 shirts is \$12. One of the shirts costs \$ p and a second shirt costs \$10.	
(a) Express the price of the third shirt in terms of p in the simplest form.	[2]
(b) What is the price of the third shirt if p is 13.50?	[1]
4. Amy is x years old. Betty is 4 times as old as Amy. Carla is 3 years older than Betty.	
(a) Express Carla's age in years in terms of x .	[2]
(b) If Amy is 2 years old, how old, in years, is Carla?	[1]

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5. Mrs. Wilson bought 4 bags of rice. She gave the cashier \$50 and received \$y change.

(a) Express the cost of one bag of rice in terms of y . [2]

(b) If $y = 18.60$, what is the cost of one bag of rice? [1]

6. $\frac{1}{2}$ of Andy's money is $\frac{3}{5}$ of Bob's money.

(a) Express Andy's money as a fraction of Bob's money. [2]

(Z) If Andy has \$15 more than Bob, how much money do they have altogether? [1]

7. Mrs. Johnson mixed meat with potatoes in the ratio of 5 : 3 to make 4 kg of meat loaf. How much meat did she use? Give your answer in kilograms and grams. [3]

8. The ratio of Zoe's money to Yolanda's is 3 : 7. Yolanda has \$64 more than Zoe. [4]
If Yolanda gives $\frac{1}{4}$ of her money to Zoe, what will be the new ratio of Zoe's money to Yolanda's?

9. Mr. Olson had 16 L of paint. He used 3 L 250 ml to paint one wall and 80% of the remainder to paint another wall. How much paint did he have left? [3]

10. A fuel tank of a car is 80% full. After traveling some distance, only 30% of that fuel is left. The tank is then filled to its full capacity by putting in 19 gallons. [4]
What is the full capacity of the tank?

11. 4,860 people visited a fair on Saturday. This was 20% more than the number of visitors on Friday. How many visitors were there on Friday? [4]

12. 30% of the beads in a jar are red. The rest are blue. If there are 500 more blue beads than red, how many beads are there altogether? [4]

13. A cyclist took 3 h to cycle from Town X to Town Y. His average speed was 12 km/h. If his average speed were increased by 3 km/h, how much time would he then take for the journey? Give your answer in hours and minutes. [4]

14. A motorist traveled from Town A to Town B. After traveling $\frac{1}{3}$ of the distance for the journey at an average speed of 45 km/h, he continued to travel another 480 km to reach Town B. If his average speed for the entire journey was 54 km/h, what was his average speed for the last $\frac{2}{3}$ of the distance? [4]

15. A car and a truck were traveling to Town Q at constant average speeds. The car overtook the truck when they were 420 km from Town Q. The car arrived at Town Q at 6:30 p.m. while the van was still 120 km away from Town Q. The van arrived at Town Q at 8:30 p.m. What was the average speed of the car? [4]

Answer Key

1. (a) $12a + 7$ (b) $5b$
2. (a) 22 (b) 11
3. (a) $\$(26 - p)$ (b) \$12.50
4. (a) $(4x + 3)$ years (b) 11 years
5. (a) $\$\left(\frac{50 - y}{4}\right)$ (b) \$7.85
6. (a) $\frac{6}{5}$ (b) \$165
7. 2 kg 500 g
8. 19 : 21
9. 2 L 550 ml
10. 25 gal
11. 4050 visitors
12. 1250 beads
13. 2 h 24 min
14. 60 km/h
15. 84 km/h

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