Name: _____ Class: _____ Date: 2/26 Points 15

Test B — Unit 4: Percentage
Chapter 2: Percentage Change

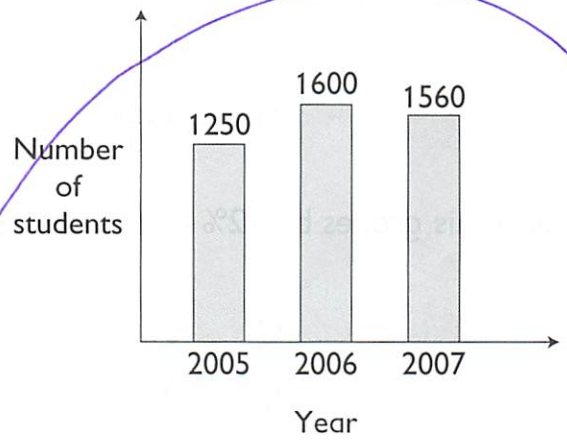
Circle the correct option, **A**, **B**, **C** or **D**.

1. Alice earned \$3200 in 2008. Her salary increased to \$4000 in 2009. What was the percent increase in her salary from 2008 to 2009?

   A 20% **C** 64%

   B 25% **D** 80%

Use the graph on the enrollment of a school to answer Questions 2 & 3.



2. What is the percent increase from 2005 to 2006?

   A 25% **C** 20%

   B 28% **D** 50%

3. What is the percent decrease from 2006 to 2007?

   A 2.5% **C** 3.25%

   B 3.75% **D** 25%

4. Dave studied for 5 hours on Saturday. He told himself that he would increase his studying time by 20% on Sunday. How many hours will he study on Sunday?

1/5 ↓ 5÷5=1 5+1=6hrs

A 1 hour **C** 5.5 hours

B 4 hours **D** 6 hours

The table shows the grades Neil obtained for his English tests. Use it to answer Questions 5 & 6.

Test 1	50
Test 2	75
Test 3	?

5. What was the percent increase from Test 1 to Test 2?

A 15% **C** 50%

B 25% **D** $33\frac{1}{3}\%$

6. He aims to increase his grades by 12% for Test 3. What grade is he aiming for?

$\frac{x}{75} = \frac{12}{100}$ 900 ÷ 100×] 9 75+9=84

A 87 **C** 89

B 84 **D** 94

7. At a basketball match, the home team scored 60 points. The players want to increase it by 40%. What is the score they are aiming for?

$\frac{x}{60} = \frac{40}{100}$ 2400 ÷ 100×] 24 60+24=84

A 24 **C** 80

B 84 **D** 100

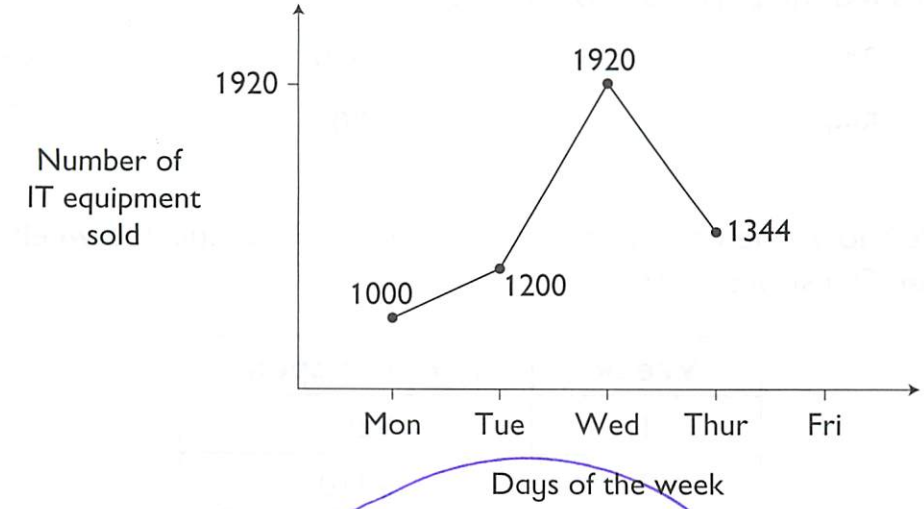
8. A company has 500 employees. During the economic downturn, the management decided to lay off 150 employees. What is the percent decrease in the number of employees in this company?

$\frac{150 \div 5}{500 \div 5} = \frac{30}{100} = 30\%$

A 70% **C** 30%

B 150% **D** 3.3%

The graph shows the number of IT equipment sold at a fair. Use it to answer Questions 9 & 10.



9. There was a 20% increase in sales from _____.

A	Mon. to Wed.	**C**	Tue. to Wed.
B	Wed. to Thur.	**D**	Mon. to Tue.

10. It was predicted that there will be a 25% increase in sales on Friday. How many units of IT equipment are expected to be sold?

A	336	**C**	1824
B	1680	**D**	2500

11. In 2008, there were 820 fishes in a lake. In 2009, the percent decrease in the number of fishes is 5%. How many fishes are there in the lake this year?

A	41	**C**	825
B	815	**D**	779

12. A pizza parlor sold 470 pizzas on Friday. On Saturday, the percent increase in the number of pizzas sold was 20%. How many more pizzas did the parlor sell on Saturday?

A 94 **C** 490

B 564 **D** 20

94
5 / 470
-45
20

94+470
=564

The table shows the amount of money spent on gasoline in a week. Use it to answer Questions 13 to 15.

Week	Amount spent
1	$200
2	$270
3	$216
4	$324
5	$243

13. What is the percent increase from Week 1 to Week 2?

A 35% **C** 25.9%

B 27% **D** 70%

14. What is the percent decrease from Week 2 to Week 3?

A 25% **C** 33.3%

B 20% **D** 75%

270
54/270 = x/100
5400
20

15. Which week had the greatest percent decrease?

A Week 1 to Week 2 **C** Week 3 to Week 4

B Week 2 to Week 3 **D** Week 4 to Week 5

Name: _____ Class: _____ Date: _____ Points 10

Test A

Unit 4: Percentage

Chapter 3: Simple Interest, Sales Tax and Discount I

1. Find the amount Janice has to pay for the items below if the sales tax is 12%.

   (a) A calculator priced at \$45

   (b) A sofa set priced at \$1250

   (c) A stereo priced at \$640

a) $\frac{x}{\$45} = \frac{12}{100}$

$540 \div 100 = 5.4$

$\$45 + \$5.40 = \$50.40$

$45 \times 12 = 190 + 450 = 540$

b) $\frac{x}{1250} = \frac{12}{100}$

$15000 \div 100 = 150$

$\$1250 + \$150 = \$1400$

$1250 \times 12 = 12500 + 12500 = 15000$

$\$640 \times 12 = 1280 + 6400 = 7680$

c) $\frac{x}{\$640} = \frac{12}{100}$

$\$7680 \div 100 = \$76.80$

$\$1400 + \$76.80 = \$1476.80$

2. Mary and Stella Department Store is having a 20% storewide discount. How much does Michelle have to pay for the following items?

   (a) A pair of shoes priced at \$72

   (b) A pair of bermuda shorts priced at \$48

   (c) A shawl priced at \$78

a) $5\overline{)\$72}$ -5, 22, -20, 20, -20, 0

$\$72.00 - \$14.50 = \$57.50$

b) $5\overline{)\$48}$ -45, 30, -30, 0

$\$48.00 - \$9.60 = \$38.40$

c) $5\overline{)\$78}$ -5, 28

$\$78.00 - \$15.60 = \$62.40$

3. Mr. Tim's family dined at Morton's Restaurant and the bill came up to $128. He needed to pay a tip of 15%. What was the total amount Mr. Tim paid?

$128 × 115 = 640 + 1280 + 12800 = 14720

$\frac{x}{\$128} = \frac{115}{100}$ ×100 → 14720 → $147.20 TOTAL

4. Nathan puts $400 in his bank. The bank gives an interest of 3% per year.

(a) How much will he have at the end of the first year?

(b) If Nathan does not withdraw or add to the amount, how much will he have at the end of the second year?

a) $\frac{x}{\$400} = \frac{3}{100}$ ×4

3·4=12

$400 + $12 = $412

b) $\frac{x}{\$412} = \frac{3}{100}$ ×4 → 1236 → $12.36 (100×)

412 × 3 = 1236

412 + 12.36 = $424.36

5. A tool set costs $90. However, there was a 25% discount when Mr. Manning bought it. He had to pay a sales tax of 10%. How much did he pay for the tool set in the end?

4 / $90 = 22.5

$90.00 − 22.50 = $67.50

$67.50 + $6.75 = $74.25

Total: $74.25