

Varied Fluency

Step 22: Percentage Increase and Decrease

National Curriculum Objectives:

Mathematics Year 6: (6R2) [Solve problems involving the calculation of percentages \[for example, of measures, and such as 15% of 360\] and the use of percentages for comparison](#)

Differentiation:

Developing Questions to support calculating percentage increases and decreases. Using 10%, 25%, 50% and 75%.

Expected Questions to support calculating percentage increases and decreases. Using multiples of 5% and 10%.

Greater Depth Questions to support calculating percentage increases and decreases. Using a range of percentages.

More [Year 5 and Year 6 Decimals and Percentages](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Percentage Increase and Decrease

1a. Increase the following numbers by 10%.

A) 120

B) 80

C) 150



6 VF

Percentage Increase and Decrease

1b. Decrease the following numbers by 75%.

A) 200

B) 160

C) 80



6 VF

2a. Mo is reducing the prices of items in his shop by 50%.

Calculate the new prices.



£22.50



£18



£12.50



6 VF

2b. Ellie is reducing the prices of items in her shop by 25%.

Calculate the new prices.



£20



£8



£24



6 VF

3a. Isaac scored 30 in his karate test.

He made himself a target of scoring 50% more in his next test.

What does his score need to be to hit his target?



6 VF

3b. Grace scored 20 in her dance exam.

She made herself a target of scoring 75% more in her next test.

What does her score need to be to hit her target?



6 VF

4a. True or false?

A 10% decrease in price from £20 means there is £2 off.



6 VF

4b. True or false?

A 25% increase in price from £80 means the new price is £60.



6 VF

Percentage Increase and Decrease

5a. Increase the following numbers by 15%.

A) 500

B) 160

C) 220



6 VF

Percentage Increase and Decrease

5b. Decrease the following numbers by 30%.

A) 150

B) 330

C) 560



6 VF

6a. Jaxon is reducing the prices of items in his shop by 30%.

Calculate the new prices.



£12.50



£15



£9.50



6 VF

6b. Ellie is reducing the prices of items in her shop by 15%.

Calculate the new prices.



£22



£9.20



£15



6 VF

7a. Isabel scored 40 in her maths test.

She made herself a target of scoring 20% more in her next test.

What does her score need to be to hit her target?



6 VF

7b. Jacob scored 50 in his English test.

He made himself a target of scoring 15% more in his next test.

What does his score need to be to hit his target?



6 VF

8a. True or false?

A 45% decrease in price from £50 means there is £22.50 off.



6 VF

8b. True or false?

A 35% increase in price from £30 means the new price is £40.50.



6 VF

Percentage Increase and Decrease

9a. Increase the following numbers by 38%.

- A) 28
- B) 42
- C) 95



6 VF

Percentage Increase and Decrease

9b. Decrease the following numbers by 72%.

- A) 145
- B) 196
- C) 68



6 VF

10a. Tye is reducing the prices of items in his shop by 12%.

Calculate the new prices.



£9.50



£11.50



£19.50



6 VF

10b. Ivy is reducing the prices of items in her shop by 8%.

Calculate the new prices.



£21.50



£9.50



£8.50



6 VF

11a. Pippa scored 52 in her flute exam.

She made herself a target of scoring 18% more in her next exam.

What does her score need to be to hit her target?



6 VF

11b. Eesa scored 45 in his piano exam.

He made himself a target of scoring 22% more in his next exam.

What does his score need to be to hit his target?



6 VF

12a. True or false?

A 26% decrease in price from £35 means there is £9.10 off.



6 VF

12b. True or false?

An 18% increase in price from £30 means the new price is £36.50.



6 VF

Varied Fluency

Percentage Increase and Decrease

Developing

- 1a. **A) 132 B) 88 C) 165**
2a. **train: £11.25, horse: £9, blocks: £6.25**
3a. **45**
4a. **True**

Expected

- 5a. **A) 575 B) 184 C) 253**
6a. **coat: £8.75, shirt: £10.50, trousers: £6.65**
7a. **48**
8a. **True**

Greater Depth

- 9a. **A) 38.64 B) 57.96 C) 131.1**
10b. **xylophone: £8.36, robot: £10.12, car: £17.16**
11b. **61.36**
12b. **True**

Varied Fluency

Percentage Increase and Decrease

Developing

- 1b. **A) 50. B) 40 C) 20**
2b. **house: £15, rattle: £6, trombone: £18**
3b. **35**
4b. **False. £100.**

Expected

- 5b. **A) 105. B) 231 C) 392**
6b. **rocket: £18.70, stacker: £7.82, teddy: £12.75**
7b. **57.5**
8b. **True**

Greater Depth

- 9b. **A) 40.6 B) 54.88 C) 19.04**
10b. **spaceship: £19.78, boat: £8.74, bucket and spade: £7.82**
11b. **54.9**
12b. **False, £35.40**