Year 7 percentages worksheet

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Name: _____ Date: _____

Question 1

(a) Write 7/20 as a percentage.

(b) Write 45% as a fraction in simplest form.

Answer: _____

Question 2

Find 15% of 80.

Answer: _____

Question 3

Write each decimal as a percentage: (a) 0.47 (b) 0.6 (c) 1.25

Answer: _____

Question 4

Priya's test results were: Maths 17/20, Science 21/25 and English 39/50.

(a) Write each result as a percentage.

(b) In which subject did she do best?

Answer: _____

Question 5

A pair of sneakers is priced at $120. A shop is offering a 25% discount. How much does a customer pay after the discount?

Answer: _____

Question 6

Write each percentage as a decimal: (a) 8% (b) 62.5% (c) 140%

Answer: _____

Question 7

Write 7/25 as a percentage.

Answer: _____

Question 8

A jacket has a marked price of $140. It is discounted by 35%. What is the sale price of the jacket, in dollars?

Answer: _____

Question 9

Three basketball players compare their shooting. Kai scored with 0.68 of his shots, Lina scored with 65% of hers and Ruby scored with 7/10 of hers.

(a) Write each player's result as a percentage.

(b) List the players from best to worst.

Answer: _____

Question 10

Ari scored 17/20 on a spelling test. What is this as a percentage?

Answer: _____

Year 7 percentages: answers and worked solutions

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Question 1

Key idea: Percent means out of 100.

1. (a) 7/20 = (7 × 5)/(20 × 5) = 35/100 = 35% 2. (b) 45% = 45/100 = (45 ÷ 5)/(100 ÷ 5) = 9/20

Answer: (a) 35% (b) 9/20

Question 2

Key idea: Convert the percentage to a decimal by dividing by 100, then multiply by the quantity.

1. Convert the percentage to a decimal: 15% = 15 ÷ 100 = 0.15 2. Multiply by the quantity: 0.15 × 80 3. Calculate: 0.15 × 80 = 12

Answer: 15% of 80 is 12.

Question 3

Key idea: To change a decimal to a percentage, multiply by 100.

1. (a) 0.47 × 100 = 47% 2. (b) 0.6 × 100 = 60% 3. (c) 1.25 × 100 = 125%

Answer: (a) 47% (b) 60% (c) 125%

Question 4

Key idea: To compare scores out of different totals, convert each to a percentage (a fraction out of 100).

1. (a) Maths: 17/20 = (17 × 5)/(100) = 85/100 = 85% 2. (a) Science: 21/25 = (21 × 4)/(100) = 84/100 = 84% 3. (a) English: 39/50 = (39 × 2)/(100) = 78/100 = 78% 4. (b) 85% is the highest, so Maths

Answer: (a) Maths 85%, Science 84%, English 78% (b) Maths

Question 5

Key idea: Find the discount amount by calculating the percentage of the original price, then subtract it from the original price.

1. Find the discount amount: 25% of $120 2. Convert to a decimal: 25% = 0.25 3. Calculate the discount: 0.25 × 120 = 30 4. Subtract the discount from the original price: 120 - 30 = 90

Answer: The customer pays $90.

Question 6

Key idea: To change a percentage to a decimal, divide by 100.

1. (a) 8 ÷ 100 = 0.08 2. (b) 62.5 ÷ 100 = 0.625 3. (c) 140 ÷ 100 = 1.4

Answer: (a) 0.08 (b) 0.625 (c) 1.4

Question 7

Key idea: Make the denominator 100.

1. 7/25 = 28/100 2. 28/100 = 28%

Answer: 28%

Question 8

Key idea: A 35% discount means you pay 100% − 35% = 65% of the original price.

1. Convert 65% to a decimal: 65% = 0.65 2. Multiply by the original price: 0.65 × 140 3. Calculate: 0.65 × 140 = 91 4. The sale price is $91.

Answer: $91

Question 9

Key idea: Write all the results in the same form before comparing.

1. (a) Kai: 0.68 × 100 = 68% 2. (a) Lina: 65% 3. (a) Ruby: 7/10 = 70/100 = 70% 4. (b) 70% > 68% > 65%

Answer: (a) Kai 68%, Lina 65%, Ruby 70% (b) Ruby, Kai, Lina

Question 10

Key idea: Make the denominator 100.

1. 17/20 = 85/100 2. = 85%

Answer: 85%