



Mixture Problems

SCORE

___ / 20

Chapter: Arithmetic • Level ★☆☆ • Time: 30 min

Name _____ Class _____ Date _____

AFTER THIS WORKSHEET YOU CAN

- ✓ Use alligation to find mixing ratios.
- ✓ Find the average price of a mixture.
- ✓ Blend ingredients to a target value.
- ✓ Understand weighted averages.



Section A • Concept Check

• BEGINNER

$4 \times 1 = 4$

- 1 Mix \$15/kg and \$25/kg to get \$20/kg. Ratio:
☐ A. 1:1 ☐ B. 2:1 ☐ C. 1:2 ☐ D. 3:1
- 2 Mix \$40/L and \$60/L to get \$45/L. Ratio:
☐ A. 3:1 ☐ B. 1:3 ☐ C. 1:1 ☐ D. 2:1
- 3 Mix 15 kg at \$12 and 5 kg at \$20. Average price:
☐ A. \$14/kg ☐ B. \$16/kg ☐ C. \$12/kg
☐ D. \$15/kg
- 4 Alligation compares each price to the:
☐ A. highest price ☐ B. mixture (mean) price
☐ C. lowest price ☐ D. total



Section B • Problem Solving

• INTERMEDIATE

$2 + 3 \times 3 = 11$

- 5 The rule used to find mixing ratios is called _____.
- 6 Mixing \$15/kg and \$25/kg to get \$20/kg needs a ratio of _____.
- 7 Mix wheat at \$15/kg and \$25/kg to get \$20/kg. Find the ratio.

- 8 Mix milk at \$40/L and \$60/L to make \$45/L. Find the ratio.

- 9 Mix 15 kg at \$12/kg with 5 kg at \$20/kg. Find the average price.



Section C • Challenge

• CHALLENGE

5

- 10 In what ratio to mix a 15% and 35% saline solution to get 25%?

Reflection — the most useful thing I learned: _____

A ___/4 B ___/11 C ___/5 Total ___/20

Teacher's Signature

Parent's Signature

ANSWER KEY — FOLD OR CUT BEFORE HANDING OUT

1-A 2-A 3-A 4-B | 5 alligation 6 1:1 7 = 1:1 8 = 3:1 9 = \$14/kg | 10 = 1:1