Do Now: Tell whether the ratios are equivalent.

1. 5/2 to 20/8
   $\frac{5}{2} = \frac{5}{2}$ Yes
2. 12 to 3 and 6 to 2
   4 to 1 3 to 1 No
3. 6 : 18 and 10 : 30
   1:3 1:3 Yes

#21, 19

(21) $\frac{\$1.44}{1\text{ ft}} = \frac{\$}{1\text{ yd}}$ $\frac{\$4.32}{1\text{ yd}}$

Dollars Feet Dollars Yards

$\frac{\$1.44}{1\text{ ft}} \cdot \frac{3\text{ ft}}{1\text{ yd}} = \frac{\$4.32}{1\text{ yd}}$

(18)

$\frac{60\text{ miles}}{1\text{ hr}} = \frac{?\text{ miles}}{1\text{ minute}}$

$\frac{60\text{ miles}}{1\text{ hr}} \cdot \frac{1\text{ hour}}{60\text{ minute}} = \frac{60\text{ miles}}{60\text{ minutes}} = \frac{1\text{ mile}}{1\text{ minute}}$

An archer shoots 60 arrows at a target, with 44 arrows hitting the scoring area.

a) Write a ratio of the number of hits to the number of shots.

$\frac{44}{60}$ $\frac{11}{15}$ 11:15 11 to 15

b)Write a ratio of the number of hits to the number of misses.

$\frac{22}{8}$ $\frac{44}{16}$ $\frac{11}{4}$ 11:4 11 to 4

An insect crawls 1 foot in 10 seconds. At this rate, how far will it crawl in 5 minutes.

$\frac{1\text{ foot}}{10\text{ sec}} \cdot \frac{60\text{ sec}}{1\text{ min}} = \frac{60\text{ feet}}{10\text{ min.}} = \frac{6\text{ ft}}{1\text{ min}}$

$\frac{30\text{ feet}}{5\text{ min}}$ $= \frac{30\text{ ft}}{5\text{ min}}$

Exit Pass 7.1

One adult chaperone is required to accompany every six students on a museum tour. How would you write this ratio of students to adults? Represent the ratio in three different ways.

7.1 Ratios and Rates

7.RP

- SWBAT find ratios and unit rates.
- SWBAT understand ways of representing numbers; understand relationships among numbers.

Calculators: Yes

25. Jessica finished a race that was 5 miles long in 30 minutes and 15 seconds. Casey finished a race that was 2 miles long in 11 minutes and 8 seconds. Who has the faster rate? Explain your reasoning.

Jessica: $30\frac{15}{60}$ minutes; $30\frac{1}{4}$; 30.25 minutes

Casey: $11\frac{8}{60}$ minutes; $11.1\overline{3}$ minutes

$r = \frac{5 \text{ miles}}{30.25 \text{ minutes}}$ Use unit rates $r = \frac{2 \text{ miles}}{11.13 \text{ minutes}}$

$= \frac{0.17 \text{ miles}}{1 \text{ minute}}$ Casey $= \frac{0.18 \text{ miles}}{1 \text{ minute}}$

$\frac{6.5 \text{ min}}{1 \text{ mile}}$ $\frac{5.565 \text{ min}}{1 \text{ mile}}$

"Don't blame the sea if you cannot catch a fish."

Working individually or with a partner, complete the workbook.

Workbook pg. 89 #2-26 evens

7, 4, 9, 10, 11, 12

14, 18, 24, 26

Answers to the Workbook

1. 4/5 4 : 5 4 to 5
2. 9/17 9 : 17 9 to 17
3. 3/-7 3 : -7 3 to -7
4. 3/2 3 : 2 3 to 2
5. -3/10 -3 : 10 -3 to 10
6. 4/5 4 : 5 4 to 5
7. 3/1 3 : 1 3 to 1
8. 8/3 8 : 3 8 to 3

Answers to the Workbook

9. 300 inches
10. 720 seconds
11. 120 ounces
12. $2.33
13. 54 pts per game
14. 40 people per boat
15. 62 miles per hour
16. 24 hours per day
17. 32 cups per gallon
18. 0.625 inches per year
19. x = 1
20. c = 25
23. 2 : 3
24. 2 : 1

Answers to the Workbook

25. Casey
26. Large can

Exit Pass 7.1

On a scale on 1 to 10 (1 being the lowest and 10 being the highest), how confident are you with finding ratios and unit rates?

Reflection of Today's Lesson

7.1 Ratios and Rates

7.RP

- SWBAT find ratios and unit rates.
- SWBAT understand ways of representing numbers; understand relationships among numbers.

Calculators: Yes

Homework

No Homework!