MEI Chapter 7: Spiral Review

1. answers will vary. Example: multiply numerators, multiply denominators, simplify the fraction

2. $$20 \text{ ft} \cdot \frac{\overset{\text{Carlos}}{5 \text{ ft}}}{\underset{\text{shadow}}{12 \text{ ft}}} = \frac{\overset{\text{tree}}{H \text{ ft}}}{\underset{\text{shadow}}{20 \text{ ft}}} \cdot 20 \text{ ft}$$

The tree is $\boxed{\frac{25}{3} \text{ ft}} = H \text{ ft}$

3. $\$96 - \$33 = \$63$
(total, bag, total shorts)

3 pairs of shorts $\rightarrow \frac{\$63}{3} = \boxed{\$21}$ ← 1 pair of shorts

Better Way (algebraic)

$3s + 33 = 96$

$3s = 63$

$\boxed{s = \$21}$

4. $10 \text{ packs} \cdot \frac{\$1.89}{3 \text{ packs}} = \frac{\$C}{10 \text{ packs}} \cdot 10 \text{ packs}$

$\boxed{\$6.30} = \$C$

5. Least Common Multiple (LCM) of 3 & 4 is $\boxed{12 \text{ min}}$

6. $7 \frac{\text{km}}{\text{hr}} \cdot 2.5 \text{ hr} = \boxed{17.5 \text{ km}}$

7. a. $36 \div 3^2 \cdot 12$

$36 \div 9 \cdot 12$

$4 \cdot 12$

$\boxed{48}$

b. $5^2 + 20 \cdot (2+4)$

$25 + 20 \cdot (6)$

$25 + 120$

$\boxed{145}$

8. 26, 31

rule: $y = 5x - 4$

9.

$\frac{6p}{6} = \frac{73.2}{6}$ $p = \boxed{12.2}$	$86.5 + x = 14$ $-86.5 \quad -86.5$ $\boxed{x = -72.5}$	$54.7 + t = 63.09$ $-54.7 \quad -54.7$ $\boxed{t = 8.39}$
$4.96 + k = 8.2$ $-4.96 \quad -4.96$ $\boxed{k = 3.24}$	$v - 36.5 = 12.4$ $+36.5 \quad +36.5$ $\boxed{v = 48.9}$	$15.5 \div f = 3.1$ $*f \quad *f$ $\frac{15.5}{3.1} = \frac{3.1f}{3.1}$ $\boxed{5 = f}$ work may vary slightly

10. 7.5 pounds: $\frac{16 \text{ ounces}}{1 \text{ pound}} = \frac{x \text{ ounces}}{7.5 \text{ pounds}} \cdot 7.5 \text{ pounds}$

$\boxed{120 \text{ ounces}} = x \text{ ounces}$