

Practice Test

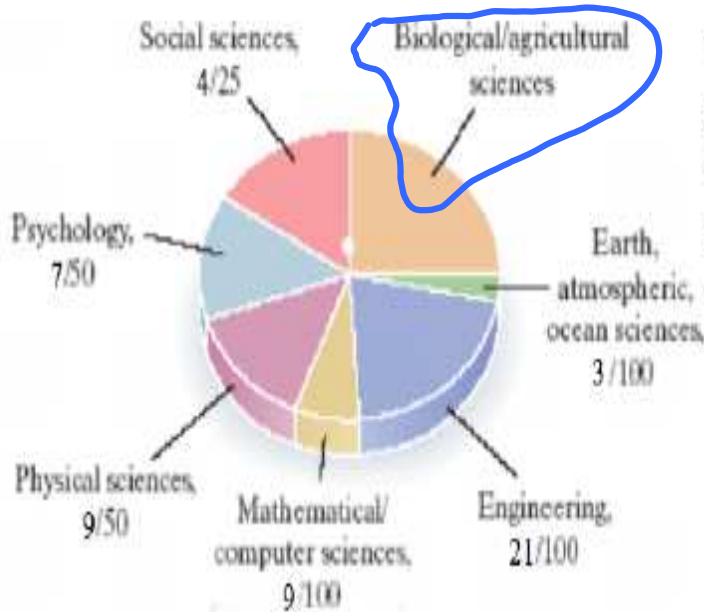
21.

A woman's personal pole vault record is $4\frac{1}{50}$ meters. A man's personal pole vault record is $1\frac{4}{25}$ meters higher than the woman's record. What is the man's pole vault record?

The man's record is meters. (Type an integer, proper fraction, or mixed number.)

$$\begin{array}{r} 4\frac{1}{50} + 1\frac{4}{25} \\ 4\frac{1}{50} \quad \frac{1}{50} \\ + 1\frac{4 \cdot 2}{25 \cdot 2} \quad \frac{8}{50} \\ \hline 5\frac{9}{50} \end{array}$$

22.



What fraction of all science and engineering doctorates are awarded in the biological and agricultural sciences?

What fraction of science and engineering doctorates are awarded in the biological/agricultural sciences?

$$4 \cdot \frac{4}{25} + \frac{3}{100} + \frac{21}{100} + \frac{9}{100} + \frac{2 \cdot 9}{2 \cdot 50} + \frac{7 \cdot 2}{50 \cdot 2}$$

$$\frac{16}{100} + \frac{3}{100} + \frac{21}{100} + \frac{9}{100} + \frac{18}{100} + \frac{14}{100}$$

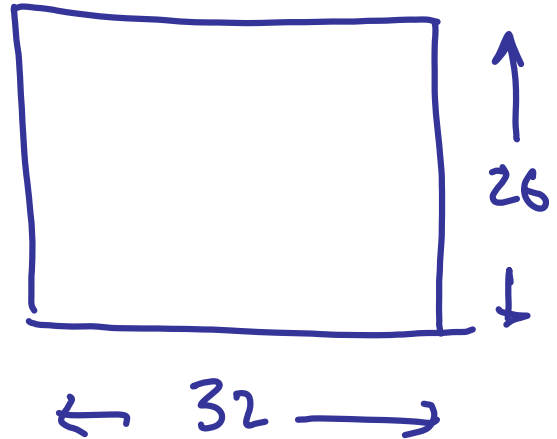
$$\frac{100}{100} - \frac{81}{100} = \frac{19}{100}$$

38. Find the area of a rectangular movie screen that is 32 feet long and 26 feet high. Use $A = LW$.

The area is square feet.

$$A = LW$$

$$\begin{aligned} A &= (32)(26) \\ &= 832 \text{ sq ft.} \end{aligned}$$



20. Perform the following operation. Write your answer in lowest terms.

$$\frac{11}{18} \div 1\frac{1}{6}$$

$$\frac{11}{18} \div \frac{7}{6}$$

$$\frac{11}{\cancel{18}_3} \cdot \frac{\cancel{6}^1}{7} = \frac{11}{21}$$

(30)

54.

Subtract.

$$\frac{1}{6} - \frac{1}{5}$$

$$\frac{5 \cdot 1}{5 \cdot 6} - \frac{1 \cdot 6}{5 \cdot 6}$$

$$\frac{5}{30} - \frac{6}{30}$$

$$\frac{-1}{30} \text{ or } -\frac{1}{30}$$

45.

Add.

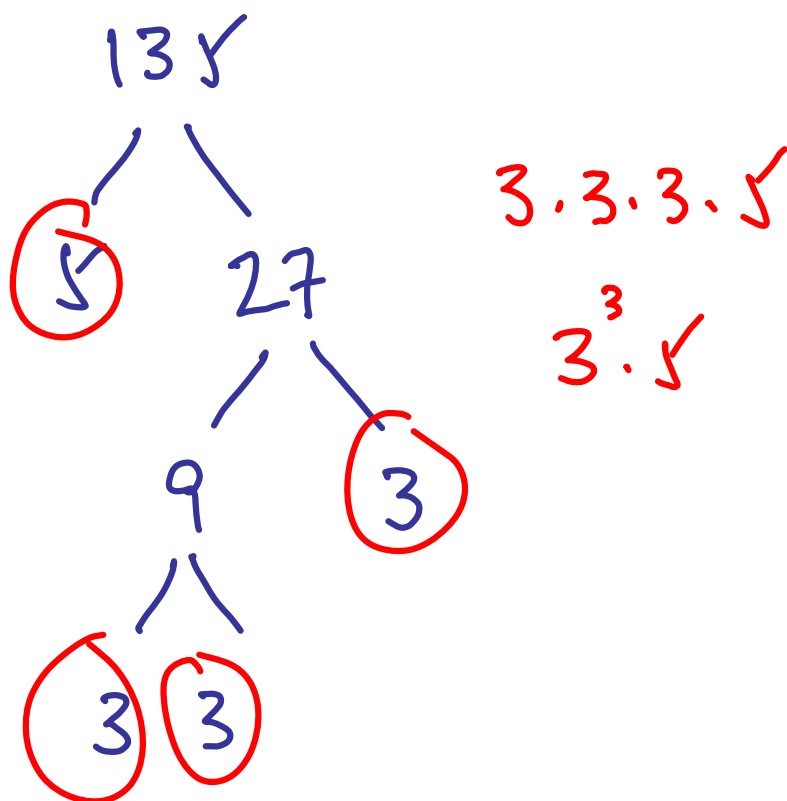
$$-\frac{9}{16} + \left[-\frac{3}{8} \right]$$

$$-\frac{9}{16} + \left(-\frac{3}{8} \right) \frac{2}{2}$$

$$-\frac{9}{16} + \left(\frac{-6}{16} \right) = \frac{-15}{16}$$

6. Type the given number as a product of prime numbers.

135



42

14.

Add the fractions.

$$\frac{7 \cdot 3}{7 \cdot 6} + \frac{2 \cdot 6}{7 \cdot 6}$$

$$\frac{21}{42} + \frac{12}{42} = \frac{33}{42} = \frac{11}{14}$$

Ex: (p 63)

Simplify

36. $5(7 + 8y)$

38. $3(8x - 1)$

40. $2(x + 5)$

42. $-3(z - y)$

44. $-5(2r + 11)$

52. $-(q - 2 + 6r)$

56. $-\frac{1}{5}(10a - 25b)$

60. $-11(5x + 3) + 10$